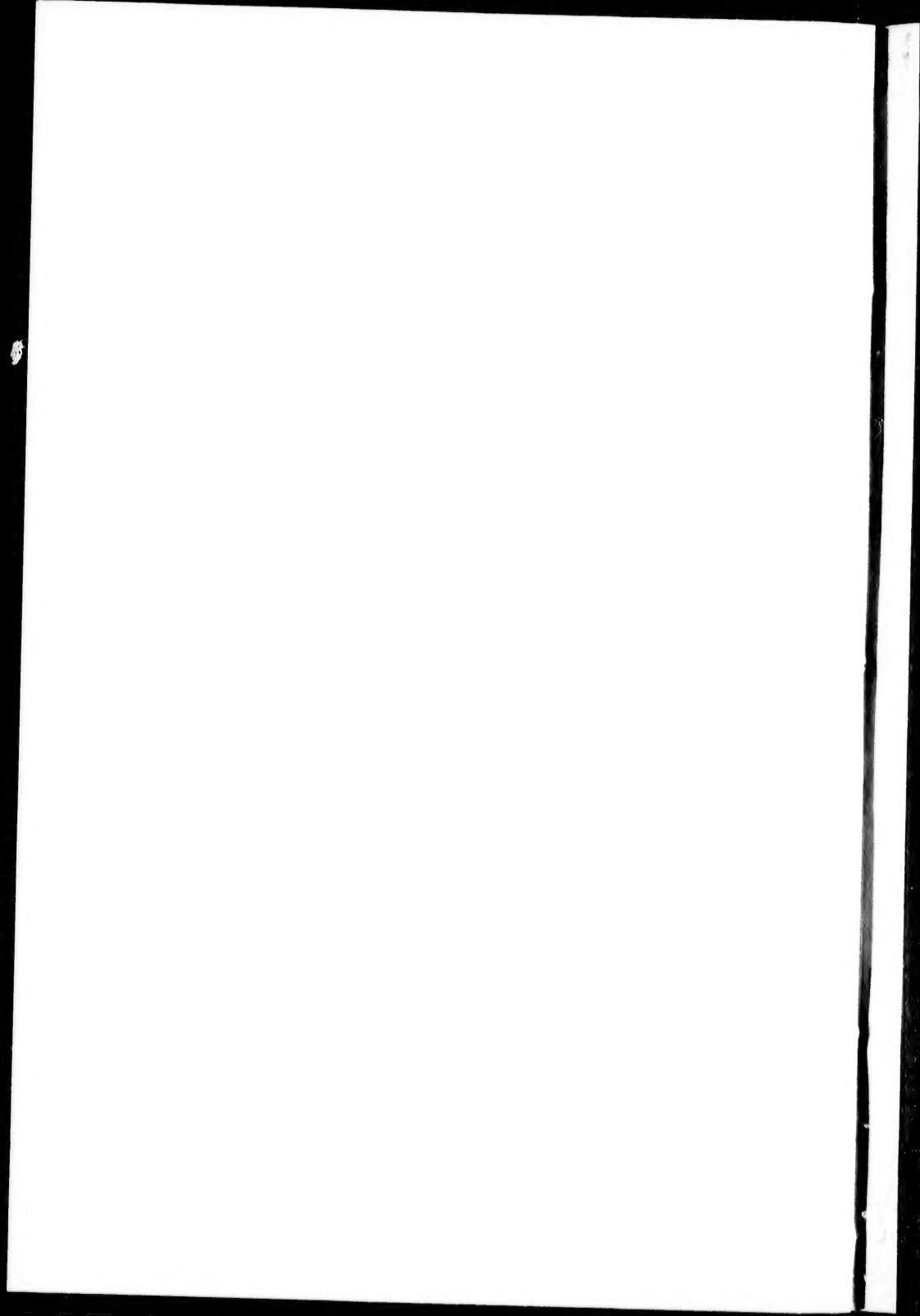




BRITISH COLUMBIA.

REPORT

OF THE

HON. H. L. LANGEVIN, C. B.,

MINISTER OF PUBLIC WORKS.

PRINTED BY ORDER OF PARLIAMENT.



OTTAWA:

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1872.**

REPORT

HON. H. P. LANGFILL, C.B.

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BRITISH COLUMBIA

REPORT OF THE

HON. S. D. LACROIX, C.E.

MINISTER OF LANDS

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BRITISH COLUMBIA.

REPORT BY THE HON. H. L. LANGEVIN, C.B., MINISTER OF PUBLIC WORKS.

To His Excellency the Right Honorable John, Baron Lisgar, of Lisgar and Bailliesborough, in the County of Cavan, Ireland, Knight Grand Cross of the Most Honorable Order of the Bath, Knight Grand Cross of the Most Distinguished Order of St. Michael and St. George, one of Her Majesty's Most Honorable Privy Council, Governor General of Canada, &c., &c.

May it please Your Excellency :—

I have the honor to report that, in accordance with the desire expressed by the Privy Council, I visited British Columbia, with the view of acquiring a knowledge of that new Province, in relation to the Pacific Railway and its western terminus. I was charged at the same time to study the requirements of that distant Province, and to ascertain personally what public works are necessary for it. To fulfil my mission, it was requisite that I should extend my observations to a point beyond that to which the attention of the Minister of Public Works, when he visits the works under the control of his department, is ordinarily confined. It is for this reason that this report necessarily includes matters which are not generally found in the reports which I have the honor to submit to Your Excellency.

On my journey to British Columbia, I travelled from Chicago to San Francisco by the American Pacific Railway, and at San Francisco, I embarked on the iron steamer "Prince Alfred," of 900 tons, which conveys the Canadian mails to Victoria, the Capital of British Columbia.

DIVISION OF BRITISH COLUMBIA.

This new Province of Canada is divided into two perfectly distinct parts—Vancouver Island and the main land. They were constituted colonies, the first in 1849, and the second in 1858; they were then united in 1866 under the name of British Columbia, and so continued until the 20th July last, at which date that large and beautiful colony became one of the Provinces of the Dominion of Canada.

CLIMATE.

Climate.

The climate of British Columbia varies according to the locality whether this be in the lower parts of the country near the sea and in Vancouver Island, or in the central tracts of the Province, which differ entirely the one from the other. In the lower parts and on the island the climate is extremely agreeable during the summer. The thermometer seldom rises above eighty degrees Fahrenheit, and in winter it seldom falls below fifteen degrees. It may in fact be said of this region, that it possesses the climate of England, but without its extreme humidity. On the other hand, in the central portion of the Province the drought, the heat and the cold are greater. The heat there is sometimes very intense. However, in the region which I visited, the cattle remain out during the whole year, and it is only when the winter is very severe, that it is found requisite to supplement the nutriment which they continue to find in the open field. As to horses, I was assured that they could find their food out of doors during the whole twelve months of the year.

Memorandum
Chief Justice
Begbie on the
climate.

"I requested the Honorable Chief Justice Begbie, who knows the Province well, to communicate to me the result of his experience; this he has done in a memorandum, which I attach with pleasure to this report, and which will be found in Appendix A. I also refer Your Excellency to Appendix B, which is another short memorandum furnished by the officials at Victoria, to Appendix C, containing meteorological observations taken at New Westminster, by order of Colonel Moody, of the Royal Engineers; to Appendix D and E, being meteorological observations taken at the mouth of the Fraser River, and at the Fisgard lighthouse in the Strait of Fuca; to Appendix F, which is an extract from the *Colonization Circular* issued in 1870 by Her Majesty's Colonial Land and Emigration Commissioners; to Appendix G, being an extract from a pamphlet by Henry de Groot upon British Columbia; to Appendix H, being an extract from a pamphlet on Vancouver Island by Dr. Charles Forbes, published in 1862; to Appendix I, being a chapter from Mr. J. Despard Pemberton's work on Vancouver Island and British Columbia, published in 1860; and to Appendix J, being an extract from a work on that Province by Dr. Alexander Rattray, published in 1862.

TERRITORIAL CHARACTERISTICS.

Territory.

British Columbia contains very extensive tracts of arable land. There is also a vast region fitted for grazing purposes, another covered with fine forests, and lastly that part of the country in which gold, silver and coal mining is carried on. The arable land is of two classes—that which is naturally well watered, and that which requires artificial irrigation. I ascertained that this artificial irrigation was for the most part not more costly than the clearing of our wooded land. The works consist generally of a dyke which retains the waters of a lake, or of a river, in such a way as to form a reservoir. In times of drought once or twice during the summer, this water is allowed to run through a conduit or ditch which discharges into another ditch dug at the upper part of the fields which it is desired to irrigate. From this latter ditch proceed a large number of trenches, dug at regular distances along the fields, so that by allowing the water to remain for from twenty to twenty-four hours, the land between the trenches is moistened, and vegetation progresses as rapidly as if a grateful shower had watered the fields. I observed this result in several places, and among others in the interior of Columbia, upon the farms of Messrs. Calbreath and Hawks, at an altitude of seventeen hundred feet above the level of the sea. On these farms I saw, adjacent to each other, fields that had been artificially irrigated, and others which had not. The former this year yielded forty bushels of wheat to the acre, while the latter produced but ten,

Arable land.

Irrigation.

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The tracts of land adapted for the raising of cattle, horses and sheep, are of wonderful extent, and offer great advantages to those who are desirous of turning their attention to that branch of industry. The climate is very favorable, admitting of the animals living in the open air, and thus diminishing the cost of shelter, which is generally only required for sheep, and then only during exceptional seasons. From the top of Mount Begbie, fifteen miles from Bridge Creek, on the Cariboo Road, may be seen an immense plain more than one hundred and fifty miles long, and from sixty to eighty miles wide. On the other hand, from Cache Creek to the United States frontier, between the Thompson and Fraser Rivers, there is an immense and magnificent tract adapted for cultivation, grazing, &c. In these parts the plains and the hills are covered with a herb called *bunch grass*, which possesses highly nutritious qualities, and the importance of which has called forth from one of the editors of the *Alta California*, of San Francisco, who was travelling in the country last summer, the following tribute of appreciation:—"In winter, he says, this herb (bunch grass) keeps the cattle in excellent condition, and as in general but little snow falls, cattle feed upon it during the whole winter. The snow rarely exceeds from twelve to fifteen inches in depth. It is from this region of the District of Okanagan that the beef, with which the Victoria markets are supplied, is obtained. Directly the winter is over the bunch grass grows with great luxuriance, and I am assured that the nutritive qualities of this bunch grass excel those of the celebrated blue grass and clover of Virginia and Maryland." In Columbia it is no rare thing to find farmers owning from two hundred to a thousand head of cattle, and the number must increase, directly the works on the Canadian Pacific Railway are commenced in Columbia, and still more when the railway is opened; for in the first case the local demand will be largely increased, and subsequently by the opening of the road new outlets for trade will be provided for sheep and cattle breeders, as well as for farmers for the produce of their land.

ADVANTAGES FOR SETTLEMENT.

It is therefore evident that this country offers considerable advantages to any one who is desirous of cultivating the soil, or of breeding cattle, horses or sheep. These advantages are more particularly set forth in a short memorandum, communicated to me by a gentleman of experience, who has resided in the Province for a number of years. It is as follows:—

"These advantages are:—1st. A mild and not very variable climate. 2nd. Immense tracts of land for the maintenance of cattle, situated to the east of the Cascade Mountains, and producing principally bunch grass. 3rd. The pre-emption right to 320 acres of land, the price of which, one dollar an acre, the purchaser may not be called on to pay for many years, and in no case until eight years have elapsed. 4th. The pre-emption right to 160 acres of land if the settler prefers to establish himself to the west of the Cascade Mountains. 5th. The existence of a good system of roads, which excite the astonishment of every stranger, when the scanty population of the Province is considered. 6th. Good local markets for farm produce, and for the increase of herds. 7th. Security against incursions and depredations by the Indians. 8th. The protection granted to person and property. 9th. Immense forests containing timber of all kinds. 10th. Inexhaustible fisheries. 11th. Mines of gold, silver, iron, copper, coal, &c. 12th. Free institutions."

FOREST LANDS AND TIMBER.

The forest lands of British Columbia are of great extent, and are very rich. They are not confined to one part of the Province, but are found

Lands for raising cattle, horses and sheep.

"Bunch grass"

Large herds.

Advantages for settlement offered by Columbia.

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Douglas pine. throughout nearly its whole extent. The Douglas pine is one of the most valuable trees in Columbia, and is found in great abundance. It yields spars from ninety to 100 feet in length, and from twenty to twenty-four inches in diameter. The tree is very often from 150 to 175 feet long without knots or branches, and of a diameter varying from six to ten feet. I have myself seen several logs from sixty to eighty feet long, and six feet in diameter, in Messrs. Moody, Dietz & Nelson's booms at Burrard Inlet. From that place—that is, from the mills belonging to those gentlemen, and to the company called the "Hastings Mill Company"—there were this year exported from twenty to twenty-five million feet of timber, which must have furnished lading for thirty ships of 1,000 tons. It is a fact that an order for 750,000 feet of timber was this year received from Valparaiso at Burrard Inlet, it having been found impossible to fill the order at the American Sound, where wood of the required dimensions could not be found. The order was in course of execution during my visit to Columbia, and the timber so exported was a subject of admiration to those who visited Burrard Inlet at that time.

Timber ex-
ported.

The short memorandum which follows was prepared at my request by a gentleman who is in a position to give exact information as to the timber of the country.

Timber trees.

"The timber trees for which the Province of British Columbia is chiefly remarkable, are as follows:—Douglas pine, spruce or Menzies fir, yellow fir, balsam, hemlock, white pine, yellow pine or Scotch fir, cedar, yellow cypress, arbor vite, yew, oak, white maple, arbutus, alder, dogwood, aspen, cherry, crab apple, willow, cottonwood.

Where found.

"These trees abound in almost all parts of the Province, and are all of more or less value. It is impossible to give any exact area or describe the exact position. But in a general way, in all the numerous indentations of the coast of British Columbia and Vancouver Island, the Douglas and Menzies pine, the cedar, and the maple, may be found in exhaustless quantities. The coast of British Columbia is wonderfully adapted, from its conformation and growth of timber, for lumbering, possessing as it does deep and safe harbors, and unrivalled water power.

White pine.

"The *White Pine* is a valuable timber for carriage building or furniture, and is plentiful, but not so generally scattered through the country.

Maple.

"The *Maple* is universal on the island and coast range.

Scotch fir.

"The *Scotch Fir* is chiefly found with the willow and cottonwood on the bottom lands.

Cedar.

"The *Cedar* abounds in almost all parts of the country. It attains an enormous growth, and is used for all sorts of purposes, the manufacture of roofing shingles being one of the most important. Its facility for splitting renders it very valuable to the farmer for fencing purposes.

Douglas pine.

"But the most valuable species is the Douglas fir. It is almost universally found on the sea coast, and up to the Cascade range. It grows to an enormous size, and is one of the best woods for large spars known. It can be obtained 150 feet in length free from knots, and has squared forty-five inches for ninety feet. Its extraordinary size, straightness, and uniform thickness, its strength and flexibility, the regularity of the grain, the durability of the timber, and its freedom from knots, places this timber almost beyond competition.

Lumbering.

"The lumbering trade of British Columbia is carried on entirely on salt water. The logs are drawn through the woods by oxen, and rolled into the water on ways constructed for the purpose, and are sawn in the mills situated at the water's edge, whence they are shipped direct. The timber of British Columbia has been barely tapped; hardly enough has been cut to make an impression on these vast forests. The yearly export amounts to about \$250,000.

"In Vancouver Island coal and wood are used for fuel; oak, pine, and Fuel. poplar are the woods chiefly in use. On the mainland pine and poplar are almost exclusively used, at a cost of \$2 50 to \$3 50 a cord (128 cubic feet) in the low country, but at the mines wood is very dear—\$7 50 a cord."

The *Arbutus* mentioned above, is found on the Island of San Juan, and *Arbutus*, on the coast of Columbia. It is an evergreen, and sheds its bark in the autumn. It is a very hard wood, and is manufactured into mallets, &c.

For further information respecting the timber of Columbia, I refer to Appendix K, which is an extract from Mr. Pemberton's work on Columbia, and to Appendix L, an extract from Dr. Rattray's book.

FACILITIES FOR THE CONVEYANCE OF TIMBER.

Having enquired what facilities the rivers of Columbia afforded for the transportation of timber, I was told in reply:—

"Timber is at present chiefly procured in the vicinity of the harbors, and towed to the different mills. Little or no wood is just now brought from the interior."

"The Columbia River affords a natural outlet for the timber growing on the slopes and hills bordering the Columbia River Valley; but the navigation of the Columbia River from the 49th parallel to the sea, is not open to British subjects as it should be."

"The Fraser River may also be made the means of conveyance of the timber of the immense forests along its upper waters, by the construction of timber slides at different places."

Facilities for the transportation of timber.

QUANTITY OF TIMBER EXPORTED.

I considered that a statement of the quantity of timber exported from Columbia during the last ten years would be a subject of interest, and in consequence, Mr. Hamley, the excellent Collector of Customs at Victoria, has furnished the required statement, with the addition of some remarks which are of use to explain it. It is as follows:—

STATEMENT of the various descriptions of Lumber exported from the Colony or Province of British Columbia during the ten years ending 31st December, 1870.

Statement of lumber exported during past ten years.

Year.	Plank.		Shingles.	Laths and Pickets.	Spars.	Miscellaneous.	Value.
	Rough.	Dressed.					
	Feet.	Feet.	M.	Bundles or M.	No.		\$
1861	288,650		878			Knees.	3,416
1862	205,600	3,000	951			Logs, &c.	2,729
1863	322,700	3,200	579			13 cords.	9,885
1864	2,687,400	430,194	1	55		1 Flag pole.	43,400
1865	2,120,410	267,246		42	251		80,195
1866	1,271,611	342,931	50	7	257		70,807
1867	4,146,000	122,000	908	175	1,424	175 pieces.	86,691
1868	15,637,303	606,922	835	512	8	21 cords.	184,135
1869	18,814,381	1,427,126	1,035	1,433	790	92 M piles.	232,154
1870	7,544,073	2,342,903	841	200	832	420 bundles.	128,257
Totals	53,038,188	5,064,322	6,078	2,424	3,562		\$862,059

"In this statement, the exports from 1861 to the end of 1866, are from the mainland portion of British Columbia only; from 1867 to 1870, they are from the United Colony.

"In 1861, 1862 and 1863, the exports were solely to the then separate colony of Vancouver Island.

"In 1864, the first lumber was sent beyond the limits of the present Province, to the Australian Colonies.

"In 1870, one of the mills at Burrard Inlet was shut for the greater portion of the year, which accounts for the falling off in the quantity exported.

"This year (1871), the exports will probably be greater than ever before.

"British ships carry more than one-half. The remainder is carried principally by Americans."

AURIFEROUS REGIONS.

Auriferous lands.

The auriferous lands of British Columbia do not appear to be confined to any single district of that great Province. They extend all along the Fraser and Thompson Rivers, and are particularly rich in the district of Cariboo. Then again there are the new gold mines of the district of Ominica in the north of Columbia, which would appear to extend over a very large tract of country, as they are found along the shores of the Peace and Ominica Rivers, of Germansen Creek and of a number of other rivers and streams. Gold has also been found on Vancouver Island, but in small quantity. It is probable that we are but beginning to discover the richness of these mines, which have not yet been systematically worked.

CAUSES OF TARDY DEVELOPMENT.

Causes of tardy development.

The first requisite in that region was a geological survey, which by giving general information as to the geology of the country, would serve as a guide to miners and diggers by shewing them at what places they might hope to find the precious metal, and in what other spots they were pretty sure not to find it. That survey is now being made, and gives promise of the happiest results. In the meantime it is established that from the United States frontier to the 53rd degree of north latitude, and to a width of from one to two hundred miles, gold is found nearly everywhere; and the Honorable Mr. Good, in his report for 1869, declares that the yield of the gold-mines in 1869 was quite proportionate to the population, and that the exports of gold dust had been ascertained to be \$2,417,873, to which amount must be added about \$1,000,000 exported by individuals, giving a total of \$3,417,873.

In the second place, there are required for the working of these mines, roads to reach them and capital to carry on the works. The Government of Columbia has already done much towards the opening of routes of communication, and it is very probable that now that it is no longer burdened with a debt too heavy for the limited population of the Province, it will be in a position to facilitate access to these auriferous regions by the opening of new roads and trails. As to capital, that will be forthcoming the moment easy access to the mines exists, and will follow the opening of the Pacific Railway, which is destined to effect a great change in the aspect not only of that Province, but of two-thirds of the Confederation.

One thing which has retarded the working of the mines of the rich district of Cariboo is the cost of freight from the Lower Fraser to Barkerville. Not only are the distances long, and the cost of transport considerable, but the articles so transported are subject to the payment of heavy duties to meet

the cost of the Cariboo road, a road which would be a credit to a rich and prosperous country. It is desirable that these duties should be repealed, or at least considerably diminished.

PRODUCE OF THE MINES.

To give Your Excellency an idea of the richness of these mines, I will here state what those which I visited produced this summer. The "South Wales" mine at Vanwinckle, twelve miles from Barkerville, which is the extremity of the Cariboo Road, produced during the last three weeks of the month of August, 328, 215 and 256 ounces of gold respectively. The "Forest Rose" mine on William's Creek, produced in one week 203 ounces, and in another 245 ounces. The "Ballarat" mine yielded 72 ounces one week, and 95 ounces the following week.

Some of these mines are at a depth of from 100 to 150 feet under ground, and the shafts leading to them communicate with galleries, each of which is more than 200 feet long. The "Lane and Kurtz" mine gives promise of very great results. It is in the centre of what is called the Meadows; it is in the hands of an American Company, with a capital of \$500,000. It had been abandoned, although it yielded a large quantity of gold; but the subterranean water came in so rapidly, that the company which was working it was unable to continue its operations for want of means. If the present American Company succeeds in pumping out the water by means of the powerful machinery which it has conveyed 600 miles into the interior of Columbia, it is certain that numerous companies will be at once established at the Meadows, who will follow the example of that company, and will be rewarded for their sacrifices by a rich harvest of gold, similar to that which was obtained by the old company, when its operations were stopped by subterranean inundation.

The Blue Book of 1876, contains the following statements respecting these mines:—

"Cariboo:—These mines have been steadily worked during the year, and with satisfactory results to those employed. Many of the old mining creeks that have been diminishing in importance for the past year or two, have this year recovered somewhat of their former prosperity, and have yielded to great advantage.

"Lilloet and Clinton:—The gold mines in this district are principally worked by Chinese, who are satisfied with small earnings in return for their labor.

"Columbia and Kootenay:—This mining district has not come up to the hopes entertained of it in previous years; the country has not been thoroughly prospected, the greater number of the miners having left it, being tempted by brighter prospects in the newly discovered gold fields of Ominica, and others having left the country to try their fortunes at new discoveries in California. Those, however, who remained seem to be content with what they have realized, and are engaged in carrying on works of sluicing and tunnelling with vigor.

"Hope, Yale, and Lytton:—The gold mining in this district is principally carried on by Chinese on the banks of the Fraser River, who make from \$1 to \$5 a day per man.

"The yield of gold for the year has been as follows:—

Cariboo	\$1,047,245 00
Lilloet	15,000 00
Columbia, &c.....	161,500 00
Yale and Lytton	110,900 00

"This, however, is only approximate, as it is impossible to arrive at the quantity of gold carried out of the country in private hands."

PRICE OF GOODS AT THE CARIBOO MINES.

Price of Goods
at the Cariboo
Mines.

Before passing on to the gold mines of the district of Ominica, I consider that to show what sacrifices the hardy miners who have opened up the Cariboo district, and who are at the present time at work there, have made, and are still making in order to work the auriferous tracts, it is expedient to insert here a comparative table of the prices of certain articles in the district of Cariboo, in 1861 and 1871. It is as follows:—

	1861.	1871.
A Shovel	\$14 00	\$1 50
A Pick	14 00	3 00
A pound of Flour	2 50	0 20
" Bacon	2 50	0 60
" White Sugar	2 50	0
A pair of gum Boots	40 00	?
A bottle of Brandy	14 00	1 00
A bottle of Champagne	14 00	8 00
A pair of Boots, half long to knee, Cariboo made,	36 00	20 00
A pair of Blankets (four points) Hud- son's Bay Company,	35 00	16 00
Freight per pound	0 90	0 11
One Meal	2 50	1 00
One ordinary Cooking Stove	350 00	100 00
One sheet iron Stove, with six lengths of Pipe	100 00	25 00
Daily wages of a Carpenter	16 00	7 00
" Foreman	16 00	6 00
" Workman	12 00	5 00
" Chinaman .....	.....	3 50

GOLD MINES OF THE DISTRICT OF OMINICA.

Gold Mines of
the district of
Ominica.

The gold mines of the district of Ominica have not been really worked until this year. They are reached either by steamer from Victoria to Nanaimo, and thence by the River Skeena, or else by the Cariboo Road. A letter from Ominica, dated 15th August last, states that it was intended to make a trail from Lake Stuart, by means of which provisions and merchandise might arrive from Yale a month earlier in the spring than they could formerly, which would probably cause that route to be preferred to the River Skeena. At that time there were in the district more than 1,200 persons within a radius of about 20 miles. As I had not time to visit that remote district, I had to derive information from other sources, and I ascertained from persons who were in a position to form the best opinions as to the results of the works in that part of the country, that those results were most satisfactory. Thus, on Lost Creek, one mine yielded 192 ounces, to be divided among five miners in return for one week's labor; and another, that belonging to Ward, Dunleavy and Co., yielded as much as \$500 a man during one week. On Black Jack

Gulch, the yield of the mine, from its first working, was \$40 a man per day, or \$200 for the five miners. On Manson Creek there were about 200 miners, who were making from \$5 to \$50 a day each. On Slate Creek, fifty men were making from \$5 to \$20 a day. On Germansen Creek, the amount of gold collected during the last week of August, was \$10,000. Since that period fresh reports have reached me, and everything tends to the belief that the season has been a productive one; the district is really rich in gold, and promises much. Some hundreds of miners have resolved to winter at the mines, and to carry on their operations during the winter. Others, in view of the high price of provisions and merchandise, will come down to Victoria, and return in the spring. And judging from the reports which flow in from all quarters, and from the numerous miners I myself met on the road, who came from Montana in the United States, and who consider this district to be another promised land, it is evident that this spring there will be a large influx of mining population.

PRICE OF GOODS AT THE OMINICA MINES.

It is, however, to be remarked, that in the month of August last, in the district of Ominica, all transactions, with but few exceptions, were on a credit basis. There was but little money or gold dust in circulation. Flour was selling at from thirty-five to forty cents a pound, and beans for a little more. Smoked pork was one dollar a pound, sugar eighty cents a pound, and beef from twenty-five to thirty cents a pound. Wages were eight dollars a day.

Price of Goods
in the district
of Ominica.

REPORT OF THE COMMISSIONER OF GOLD MINES.

Since the foregoing was written, the Commissioner of Gold Mines in that district has made a report, of which a copy has been sent to me; it gives a correct idea of the state of affairs, and I consider it important that it should not be omitted. It is as follows:—

"GERMANSEN CREEK, OMINICA,

"23rd October, 1871.

"SIR,—I have the honor to report for the information of His Excellency the Lieutenant Governor, that the mines on Germansen Creek have failed to realize the expectations formed of them in the early part of the season; and at present there are but few companies taking out pay. Several are, however, preparing to test the hills on the upper portion of the creek during the coming winter; and, should they be successful, it is in contemplation to construct large ditches, which will greatly facilitate the working of the benches and hills on either side of the creek.

Official Report
on the Omini-
ca Mines.

"I am, however, enabled to report more favorably of Manson River and its tributaries, which have, notwithstanding the difficulties attendant on the opening of the mines, in many instances, paid the miners handsomely.

"Several ditches are now being constructed with a view of conveying water to the benches and hills of Manson River and Slate Creek, where a very considerable amount of gold has already been obtained; and I have no hesitation in saying that the diggings, in this portion of the district, are sufficiently established to justify the belief that they will afford profitable employment to a large number of men for years to come.

"On Manson River, the greater portion of the season has been spent in working the surface diggings in the bed of the stream, which have barely paid expenses; but it is now apparent that a deep channel exists, as was the case in Williams' Creek, and the most experienced miners in the district are of the

"opinion that the channel contains the lode for which they have been searching; and from the prospects obtained by the only two companies who have succeeded in sinking to the bed rock, it would appear that these opinions are well founded.

"It is difficult to ascertain, with any degree of accuracy, the amount of gold taken from the Ominica mines, during the present season; but the returns that have been furnished to me by the foremen of the principal companies, shew a yield of over \$300,000, and to this may be fairly added not less than \$100,000 more, taken away in the hands of miners, of which there is no return, making in all \$400,000.

"At the request of a number of miners, I have reserved a plot of land, on the north bank of Manson River, at the mouth of Slate Creek, for a town site, and have had it marked off into thirty lots; since which, several traders have built substantial houses and commenced business there.

"(Signed) P. O'REILLY,
Gold Commissioner."

EXPORTATION OF GOLD.

Exportation of Gold. I received from the Honorable Mr. Good, the following statement of the official exportation of gold. The note at the bottom shews that, to arrive at the amount of gold really yielded by the auriferous territory, 33 per cent must be added.

"STATEMENT of the Gold shipped from British Columbia by Banks, from 1862 to 1870, and as far as can be ascertained for 1871.

Year.	Bank of British N. America, (actual shipments).	Bank of British Columbia, (actual shipments).	Wells, Fargo & Co., (actual shipments 1867, '68, '69 and '70, estimated for 1862, '63, '64, '65 and '66).	Total.
	\$	\$	\$	\$
1862.....	58,789	{ 502,835 } 902,835	650,000	1,211,624
1863.....	674,378	.....	302,169	1,376,547
1864.....	716,381	1,428,467	603,240	2,748,088
1865.....	546,649	1,496,386	574,769	2,618,404
1866.....	751,987	798,116	433,505	1,983,600
1867.....	1,144,888	499,603	216,160	1,860,651
1868.....	666,259	915,288	198,182	1,779,729
1869.....	597,245	495,577	232,062	1,324,884
1870.....	330,120	432,482	240,115	1,002,717
1871, to 20th Sept....	243,595	336,926	(Estimated) 163,271	743,792
	5,730,291	7,316,277	3,613,673	16,650,036

"This Return is exclusive of gold carried out of the country by miners themselves, which has always been estimated at one third more in each year.

"(Signed) CHARLES GOOD,
Colonial Secretary."

SILVER AND COPPER MINES.

Silver & Copper Mines. The silver and copper mines of British Columbia have not yet been largely worked. Nevertheless, in the month of September last, I saw very rich specimens from a silver mine near Hope, on the Fraser River, and I was

told that it was proposed to work that mine on a large scale. On the spot, works of a considerable extent were being carried on; among others, a road leading from Hope to the mine itself. I am further aware that this silver mine is not the only one which exists in the Fraser Valley; and, so soon as the Hope mine shall have been worked and shall have yielded, as is expected, good results, there is no doubt but that other mines situated in the same range of mountains, will likewise be worked.

COAL MINES.

The coal mines of Columbia are very valuable and numerous. The Coal Mines of Nanaimo, which yield bituminous coal, are those which, at the present time, are the most worked. They are very easy of access, and vessels can be loaded from them without difficulty. This coal abounds on the eastern coast of Vancouver Island, not only at Nanaimo, but also at Departure Bay, Bayne's Sound, Isquash and at Moskeemo, near the end of the Island. This coal is, in fact, the only good coal found on the Pacific coast. Mr. Dilke has probably this in his mind when he remarks as follows in his "Greater Britain":—

"The position of the various stores of coal in the Pacific is of extreme importance as an index to the future distribution of power in that part of the world; but it is not enough to know where coal is to be found, without looking also to the quantity, quality and cheapness of labour, and facility of transport. In China and in Borneo there are extensive 'coal fields,' but they lie the 'wrong way' for trade. On the other hand, the California coal at Monte Diablo, San Diego and Monterey lies well, but is bad in quality. Tasmania has good coal, but in no great quantity, and the beds nearest to the coast are formed of inferior anthracite. The three countries of the Pacific, which must, for a time at least, rise to manufacturing greatness, are Japan, Vancouver Island and New South Wales; but which of these will become wealthiest and most powerful depends mainly on the amount of coal which they respectively possess, so situated as to be cheaply raised. The dearthness of labour which Vancouver suffers will be removed by the opening of the Pacific Railroad, but for the present New South Wales has the cheapest labour, and upon her shores at Newcastle are abundant stores of coal of good quality for manufacturing purposes, although for sea use it burns 'dirtily' and too fast."

On the subject of the coal mines of Columbia, the Blue Book of 1860 contains the following:—

"Two hundred men are employed in these mines. The yield for 1869 was 40,883 tons, of which 19,700 tons were shipped to foreign parts. The price of coals at the pit's mouth is 24 shillings (sterling) a ton. The coal contains 66 per cent. of carbon. The area of the mine is 900,000 square yards. Three pits are worked. The seam is generally 4 feet thick."

The Blue Book of 1870 adds:—

"These mines are progressing favourably, and have been worked to advantage during the year, the yield of coal for exportation having been about 30,000 tons. The price of coal at the pit's mouth is \$6 per ton. The coal contains 66 per cent. of carbon."

A Director of one of these mines told me that the mine produced this year 44,000 tons of coal. This mine, as well as others, would yield much more if our coal was not subject in the United States to a very heavy import duty.

English vessels which are stationed at Esquimalt or which touch at these ports, make partial use of the Columbia coal. A trial having been made to test the respective qualities of Douglas, Newcastle and Dunsuir

Comparison of three descriptions of coal,

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coal on board H.M.S. "Boxer," the following result was ascertained by the Chief Engineer:—

"H. M. S. "BOXER."

"Trial of Douglas, Newcastle, and Dunsmuir Coals on the 24th, 27th, and 29th of September, 1870.

	Douglas.	Newcastle.	Dunsmuir.
Hours fires have been lighted	9 hrs. 20 m.	9 hrs. 0 m.	9 hrs. 5 m.
" steaming	7 hrs. 40 m.	7 hrs. 30 m.	7 hrs. 30 m.
Height of steam gauge	34 lbs.	36.7 lbs.	36.5 lbs.
Total quantity of Coals used in lbs.	17,808	15,732	15,478
Quantity used while Steaming lbs.	15,778	13,869	13,632
Revolutions per minute	143	143	151
Horse power, indicated	292.9	276.22	296.1
Coals per indicated Horse power per hour.	7.6 lbs.	7.17 lbs.	6.6 lbs.
Miles run during trial	70	60	65
Quantity of coals used per mile	225.4 lbs.	231.15 lbs.	209.7 lbs.
Density of Sea water	1 nearly	1 nearly	1 nearly
" of water in Boilers	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$
Direction of wind	various	abead	abead & aft
Force of wind	1 to 2	1 to 3	1 to 3
Total quantity of Ashes in lbs.	1,472	1,378	1,399
" " Clinker in lbs.	790	858	725
" " Soot in lbs.	125	160	116
Per centage of Ashes	9.32	8.75	9.04
" " Clinker	4.43	5.45	4.68
" " Soot	.792	1.017	.7494

"With Dunsmuir coal, the throttle was nearly wide open, with Newcastle and Douglas from one-third to one-half open.

"Dunsmuir compared with Newcastle:—There is more smoke, much less soot, the tubes are much cleaner, the work is much lighter for the stokers, it is better steaming coal and there is much less dirt about the deck.

"Dunsmuir compared with Douglas:—There is less smoke, the tubes are much cleaner, less dirt about the deck, and they keep steam much better.

"Newcastle compared with Douglas:—There is much less smoke, keeps steam better, the tubes are about the same, and dirt about the deck the same.

"While trying the Dunsmuir coal the boilers primed very much, if they had not done so, the horse power, revolutions, steam, &c., would have shown a much better result.

"(Signed) ANDREW WATT,
Engineer in Charge."

"H.M.S. 'Boxer,' Esquimalt, B. C."

ANTHRACITE.

Anthracite.

Veins of coal have been found in several other parts of the Province; the coal is of excellent quality, but a deficiency of capital has prevented the veins being worked. Thus on Queen Charlotte's Island excellent and very valuable coal is found; it is anthracite. It contains seventy-two per cent of carbon, and it is stated to be better adapted for use in foundries than the Pennsylvanian anthracite. In 1869 the company which was working this mine, was taking coal from three veins on 6,000 acres of land; in three years the company expended \$80,000 in carrying on their works. The coal was worth \$10 at the mouth of the shaft. But for want of means the company had to abandon both

its mines and its capital. Coal has been found not only on Vancouver Island, but also in the interior of Columbia, 160 miles from the sea, near the Nicola River, a tributary of the Thompson. It is said to be superior to that on the sea coast.

Mr. Hamley, the collector of Customs at Victoria, at my request furnished the following statement of coal exported during the last four years. Exportation of Coal.

STATEMENT of the Coal exported from British Columbia, from 1867 to 1871:—

Year	Where Shipped.	Quantity. Tons.	Value. \$
1867	To the United States	11,223	72,953
1868	" " "	29,219	189,923
"	" Mexico	1,305	8,482
1869	" the United States	19,970	119,820
1870	" " "	16,114	96,687
Total.....		Tons 77,831	\$487,865

Mr. Hamley, adds:—

"Before 1867, the Colonies were separate and no account was therefore kept of the export of coal from Nanaimo at the Custom House of British Columbia. Nanaimo coal is universally used in Victoria. A large quantity is consumed by her Majesty's ships and the coasting steamers, and a few tons are annually sent to the mainland."

To ascertain correctly what these mines have produced, it is necessary to establish what are the sales effected by the companies working them. The following statement was furnished to me as correct:—

Amount of Sales of Coal.

1861	14,600 tons.
1862	18,690 "
1863	21,394 "
1864	28,632 "
1865	32,819 "
1866	25,115 "
1867	31,239 "
1868	44,005 "
1869	35,802 "
1870	29,843 "

I was further informed that the prices of labor, in relation to coal mines, are as follows:—

Miner.....	\$3.00 to \$4.00 a day
Mechanic.....	3.75
Engineer.....	2.00 to 3.50 "
Blacksmith.....	2.00 to 3.25 "
Laborer	1.75 to 2.00 "
Chinese or Indian.....	1.00 to 1.25 "

Having thus spoken of the arable, grazing, forest and mining lands of British Columbia, I annex as appendices the following documents: Appendix M, letter from the proprietor of the Dunsmuir mine, giving interesting details on the subject; Appendix N, letter giving important details in relation to the mines of the District of Ominica; Appendix O, law respecting gold mines; Appendix P, law respecting mineral lands, other than auriferous lands; Appendix Q, the Columbia land law; Appendix R, an extract from Dr.

Rattray's work on the Columbia coal ; Appendix S, the law respecting joint stock companies.

AGRICULTURAL PRODUCE, &c.

Agricultural produce.

Besides the produce of the mine, there is agricultural produce, and that obtained from cattle breeding, the fisheries and the chase. Wheat, barley, oats, potatoes, peas, vegetables, and fruits, such as apples, plums, cherries, &c., grow and flourish in Columbia. At Cariboo, however, the frequent frosts do not allow of the cultivation of grain ; and what little cultivation there is there, is confined to vegetables which do not require a long season to bring them to a degree of maturity at which they can be used. But it would be erroneous to suppose, that, in the interior of Columbia, the cultivation of grain cannot be carried on. I saw in the interior, at the mouth of the Quesnel River, land farmed by a Canadian of the name of Brousseau, and he had a magnificent crop of all sorts of grain. More than this, at a distance of thirteen and a half miles from the Quesnel River, towards the interior of Columbia, I saw at a level of 2,700 feet above the sea, cabbages, carrots, turnips, and potatoes, which would have done credit to any part of Canada whatever. And elsewhere, at almost as great a height, I found fields of wheat, barley, and oats, presenting the finest possible appearance, and in their mute language proclaiming that those who believed that Columbia was a land of mountains, unfit for cultivation, and destined to prove but a source of expense to the Confederation, had made a great mistake. The fact is, that, at Clinton, I was shewn a mill, among others, that this year turned out four hundred tons of flour, and the wheat brought to this mill is entirely the produce of the country. There are, I think, eight mills of that description. Last year, barley and oats were sold at from two to three cents a pound ; this year they are selling at from three to five cents. Wheat was sold at three cents last year, and this year it is selling at three and three-quarter cents a pound. For details respecting agricultural produce, I refer to Appendix T, which is an extract from the Blue Book for 1870. It also contains a list of the prices of certain articles of consumption.

CATTLE.

Dr. Rattray, whom I have already quoted as a man who is generally well informed as to our new Pacific Province, after having spoken of Vancouver Island as not being highly susceptible of cultivation, except in its southern parts, adds :—

"This colony, however, has British Columbia on her right to fall back " upon to supply her markets, a country in every way adapted, by its climate, " soil, fine pastures, and an abundance of arable land, for agricultural and " pastoral development, and capable of becoming a storehouse of animal and " vegetable produce, able to supply, not only this island, but the entire Pacific."

Raising of cattle, &c.

The author is right. Columbia not only yields abundance of agricultural produce (and will yield more when the population is greater, and the demand increases), but the country is specially adapted for the raising of cattle, horses, and sheep. I saw oxen, six years of age—which had never been under any shelter other than the vault of heaven—in very good condition, and as fat as the finest cattle which are brought to the markets in our Eastern Provinces. I do not mean to say that a prudent cattle-breeder ought not to provide shelter for his cattle, and ought not to lay in at least one month's forage, in case of accident, a thing he can easily do, for the plain is covered with the succulent grass of which I have already spoken above.

What I have just said in relation to cattle applies equally to horses, with this difference, that the horse finds his food more easily, in the event of a fall of snow, than the ox does. His foot easily penetrates through from ten to twelve inches of snow, and reaches the grass, which, in that country, constitutes his favorite nourishment.

With respect to sheep, there is no part of Canada better adapted for raising them than Columbia. They here continue in good condition, fatten rapidly, and the breeder finds a ready sale both for the mutton and for the wool.

It is needless to say that the porcine race is represented here, and multiplies to an astonishing extent. During the fine season they only need the roots, fruits, cactus, and herbs, which are so abundant in all parts of Columbia; but, like sheep, they require more care during the winter. The pig, however, is an animal for which there is always a market in a mining country like Columbia, and which is always sure to bring a fair profit to the breeder.

FISHERIES.

The fisheries of Columbia are probably the richest in the world, but they have been but very little worked. The gold fever draws immigrants towards the auriferous tracts, causing them to neglect what to many of them would prove to be a much richer mine, and one yielding much more certain results than that, to seek which they go so far, and undergo so much labor and fatigue. At the present time things are beginning to wear a different aspect; some attention is being turned to the fisheries, without, however, the auriferous lands being in consequence neglected; however, the fisheries require fresh arrivals to develop their full resources. The present population has its ordinary avocations, and can devote to this new branch of industry but an unimportant part of its time. Inferences may be drawn from the fact that there are really only two large fishing establishments: one a salmon fishery under the management of Captain Stamp, who, for the first time, exports salmon in tin boxes; the other, a whale fishery in the Gulf of Georgia. I saw one of the whalers, the *Byzantium*, in Deep Bay. She was an English brig, commanded by Captain Calhoun, and on board of her was Captain Roys, the inventor of an explosive ball, which is used in the whale fishery, and which, on penetrating the marine monster, explodes, and throws out a harpoon. The first whale, against which this projectile was used, was killed in 1868. In 1869 and 1870, the company made use of a small steam vessel; and their success last year induced them to devote to the trade a brig of 179 tons, manned with twenty hands. Captain Calhoun complained of having to pay heavy duties on nearly all the articles required for the fishery. This obstacle to the success of this branch of industry, will shortly be removed by the substitution of the Canadian tariff for the tariff of British Columbia.

I was assured that, if that expedition proved a success, there is room in our Pacific waters for at least fifty undertakings of a similar character. I observe that, since my return, the whaling schooner *Industry* has arrived at Victoria with 300 barrels, or about 10,000 gallons of oil, after an absence of only five weeks. One of the whales killed during the expedition was sixty feet long, and would certainly yield nearly seventy barrels of oil.

On this subject the Blue Book of 1870 contains the following:—

“During the year there were three whaling companies in existence (one of these has since broken down). Thirty-two whales were killed, yielding 25,800 gallons of oil, worth 50 cents per gallon. There was one vessel with boats, and there were two stations with boats, employing altogether forty-nine hands. The capital invested in this interest amounted to about \$20,000.”

“The dog-fish catch exceeds in importance that of the whales. 50,000

"gallons of dog-fish oil was rendered, worth forty cents per gallon. This branch of industry is steadily progressing."

From another source I have obtained the following information respecting 1871.

Whaling companies.

"There are three whaling expeditions now in action in the waters of British Columbia, viz.:

"1st. The British Columbia Whaling Company, with the "Kate," a schooner of seventy tons, outlay \$15,000. They have already secured 20,000 gallons; they expect 10,000 more. The value of oil here is 37 cents a gallon. In England it is worth £35 a ton of 252 gallons. This company have in addition secured already 30,000 gallons of dog-fish oil, worth 37 cents here per gallon, 55 cents in California, and £35 a ton in England.

"2nd. The brig "Byzantium," 179 tons, expenditure \$20,000. Their take for the year is not known.

"3rd. Steamer "Emma" and scow "Industry," expenditure \$10,000 estimated take 15,000 gallons.

"This coast is considered by an old whaler from Providence to be one of the best fields in the world from whence to start whaling enterprizes. Particular attention is called to the value and facility of the dog-fish oil fishery, which is even a more paying undertaking, at present, than the whaling."

Salmon.

In Columbia salmon is most abundant, and constitutes one of the principal sources of wealth in the country. It is sold at a very low price—five cents a pound—at Victoria, and constitutes an important part of the food of the Indians. There are five species, a description of which is contained in Appendix U., which is an extract from the Reverend Dr. Brown's pamphlet on British Columbia.

DETAILS RESPECTING THE FISHERIES.

As this branch of industry, the fisheries, was so little developed, I obtained from a gentleman who is, from his studies, in a position to give me correct information on this subject, a memorandum which, though short, gives more details than it was possible for me to obtain from official documents. It is as follows:—

"In speaking of the fisheries of British Columbia, one may almost be said to be speaking of something which has no existence. With the exception of a small attempt at putting up salmon in tins on the Fraser River, and one or two whaling enterprizes of a few years standing, no attempt whatever has been made to develop the actually marvellous resources of this Province in the way of fish. I will, therefore, proceed to give a list of the fish that are to be found in quantities that would warrant the establishment of fisheries, and then a brief description of the habits, locality, and commercial utility of each class of fish, with any remarks that may occur that would be of interest or value.

"Description of fish found in British Columbia and Vancouver Island:—
"Whale, sturgeon, salmon, oulachan or houlican, cod, herring, halibut, sardine, anchovy, oysters, haddock, and dog-fish.

Different varieties of fish.

No restrictive laws in force.

"There is no law governing fisheries in British Columbia. Fishing is carried on throughout the year without any restrictions. This state of things is well suited to a new and thinly populated country. The restrictions of a close season would be very injurious to the Province at present, and for many years to come.

"It is quite impossible to give even an approximate estimate of the produce of the fisheries during the last ten years, there being no data from which it could be computed.

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"There is no local law preventing Americans from fishing in our waters.

"*Whale*.—I am unable to say whether the whales are sperm, or of what species, but an undertaking, now some three years old, seems from all accounts (it has been found impossible to obtain any official return from the company) to have been very successful. That it is a profitable speculation there can be no doubt, or it would have been long ago abandoned; and that the company have no difficulty in obtaining whales is also demonstrated by the amount of oil secured. I have little doubt that if this branch of industry were followed up by men well versed in the requisite knowledge, a vast amount of wealth might be added to this Province by whale fisheries.

"*The Sturgeon* abounds in the rivers and estuaries of British Columbia. This fish is caught with little or no difficulty. It attains a gigantic size, over 500 lbs. in weight. The flesh is excellent, both fresh and smoked. No attempt, that I am aware of, has ever been made to put the fish up for market. Its commercial value is derived from the isinglass and caviare which are made from it. I am not aware of there having been any attempt to manufacture isinglass in this country. Caviare of excellent quality has been produced. At present I should be inclined to believe that there is no person in the Province capable of making isinglass, which is, therefore, a resource entirely undeveloped as yet.

"*Salmon*.—The salmon in the waters of British Columbia are excellent in quality, varied in species, and most abundant. In the rivers which they penetrate up to their head waters, they are caught by a drag-net in the deep waters, and by a bag-net in the rapids. In the sea they are generally caught with hook and line; a canoe at certain seasons can be filled in a day by the latter method. The Fraser River salmon is justly famous. It is used fresh, salted, pickled, smoked, and kippered, and for export is put up salted in barrels, and fresh in one or two pound tins; the latter practice has only been commenced during the past three years. The article produced is of a most excellent description, and will doubtless prove a source of considerable export trade when it becomes known in suitable markets. There would appear to be no limit to the catch of salmon.

"*Oulachans or Houlicans*.—This small fish, something about the size of a sprat, appears in the rivers of British Columbia and about certain estuaries on the coast towards the end of April. Their run lasts about three weeks, during which time they may be captured in countless myriads. Eaten fresh they are most delicious, and they are most excellent packed in a salted or smoked form. This fish produces oil abundantly, which is of a pure and excellent quality, and which, as held by some, will eventually supersede cod liver oil. This fish is caught with a pole of about ten feet in length, along which are arranged, for five feet at the end, nails like the teeth of a comb, only about an inch and a half apart. The comb is thrust smartly into the water, brought up with a backward sweep of the hands, and is rarely found without three or four fish impaled on the nails. I have seen a canoe filled with them in two hours by a couple of hands.

"*Cod*.—Several species of cod are found in the waters of British Columbia, which are excellent both fresh and cured. It has been often asserted, I cannot say with what truth, that the true cod is found on this north-west coast. That, however, remains to be proved.

"*Herring*.—This fish also abounds during the winter months, and is of good sound quality. It is largely used in the Province, both fresh and smoked, but nothing has been done in the way of export.

"*Halibut*.—Halibut banks are of frequent recurrence in the inland waters of this Province. The fish attain an enormous size, and are caught

- "by deep-sea-lines. They are only used in the Province at present. They are of first rate quality, and an excellent article of food.
- Sardines.** "Sardines.—Are always found among herrings. I cannot state if they are precisely the fish known to commerce under that designation, or in what quantity they exist; but they are firm in flesh and excellent in flavor.
- Anchovy.** "Anchovy.—This fish is only second to the oulachan or houlican in its abundance. During the autumn it abounds in the harbors and inlets, and may be taken with great ease in any quantity. Eaten fresh, they have rather a bitter flavor.
- Haddock.** "Haddock.—This fish, called in the country 'mackerel,' to which however it has no resemblance, is a great favorite both fresh and cured. It is caught in the winter months, and when smoked forms a luxurious addition to the breakfast table. I am of opinion that a very large trade will be done some day in exporting this fish to the southern ports of America, where fish is highly valued in a smoked or cured state.
- Dog-fish.** "Dog-fish.—This species of fish can be taken with great facility with a line and hook in almost any of the numerous bays and inlets of this Province. The oil extracted from them is obtained in abundance, and is commercially of much value. It is produced in moderately large quantities by the Indians, and exported.
- Oysters.** "Oysters.—Are found in all parts of the Province. Though small in their native beds, they are finely flavored and of good quality. When, in course of time, regular beds are formed, and their proper culture is commenced, a large export will no doubt take place both in a fresh and canned state. "There is a large consumption of oysters in cans on the Pacific coast."

PRODUCTS OF THE CHASE.

Furs.

The products of the chase in Columbia are very various and abundant. Furs, for example, constitute one of the most valuable exports from this Province. I procured the following list of animals, the furs of which are obtained for the purposes of trade, the value of the fur being set opposite to the name of each animal, viz. :—

	Each.
Panther	\$2 50
Wild Cat	0 75
Wolf	2 50
Red Fox	25 00
Fisher	5 00
Mink	2 00
Martin	5 00 to \$10
Raccoon	0 75
Beaver	1 00 per lb.
Black Bear	5 00 to \$8
Brown Bear	7 50
Wolverine	1 00
Siffleur	0 50
Musk Rat	0 25
Lynx	3 00
Common Otter	5 00
Sea Otter	50 00 to \$80
Squirrel	0 12
Red Deer (Elk)	0 15 per lb.
Blacktailed Deer	0 15 "

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Ermine	0 50
Sea Lion	0 00
Fur Seal	10 00
Mountain Goat	2 00
do Sheep	3 00

At Cariboo.

Silver Fox	50 00 to \$70
Black Fox	100 00

Until the year 1860 the fur trade was entirely monopolized by the Fur trade. Hudson's Bay Company; but since that date the trade has ceased to be exclusively in the hands of that Company, and there are now a large number of persons who have invested their capital in it. In general, the trade is carried on by coasting vessels, which exchange goods for peltry. It is rather difficult to arrive at a just estimate of the value of the furs exported. I was however assured that it amounted to \$210,000, in 1868, and to \$233,000 in 1869.

BIRDS AND ANIMALS OF COLUMBIA.

There are also in British Columbia large numbers of waterfowls, snipe, geese, swans, pheasants, partridges, prairie chickens, grouse and ducks, without taking into account—says one writer—the eagle, sparrow-hawk, mosquito-hawk, owl, wood-pecker, humming-bird, king-fisher, swallow, robin, crow, pigeon, plover, crane, magpie, thrush, jay and blue-bird.

In Appendix V will be found a list of the animals and birds of Vancouver Island, furnished by Dr. Forbes. I add to it, in Appendix W, an extract from Mr. Pemberton's work, giving some further details respecting the animals and birds of Columbia.

STONE QUARRIES.

After having pointed out the principal products of Columbia, I perceive that I have omitted to mention the fine stone quarries at Newcastle Island (two miles from Nanaimo) in Departure Bay. A sandstone of very fine quality is obtained from them. From the upper part of the quarry can be quarried blocks 50 feet long by 8 in diameter. I saw columns 30 feet long, by 4 feet and two inches in diameter, intended for the San Francisco Mint. The lower part of the quarry, which is very considerable, is composed of strata from 6 inches to 4 feet in thickness. The agent of the company, which is working this quarry, told me that 8,000 tons of this stone would be required for the San Francisco Mint, and I understood that the stone cost \$3 a ton on board the vessel; large blocks however costing double that price.

SHIPBUILDING AND NAVIGATION.

I now come to the subject of shipbuilding and the navigation of the Ships. Province.

The number of vessels built during the last ten years is not considerable. It is a branch of industry which is as yet only in its infancy; but which, through the opening of the Canadian Pacific Railway, is destined soon to assume large proportions.

It is however expedient, for statistical purposes, to ascertain that number, though small. It is as follows:—

Victoria.....	1861	3 Steamers	5 Schooners	
"	1862	2	"	1 Barge
"	1863	2 Steamers	2	"
"	1864	2	"	"
"	1865	2	"	"
New West- minster... }	1865	1	"	1 Light Ship
Victoria.....	1866	2 Steamers		
"	1867	1	"	1
Sooke.....	1867			1 Brigantine
Victoria.....	1868	2 Schooners		
Soda Creek	1869	1 Steamer		
Victoria.....	1870			
Victoria.....	1871	2	"	
Total		9 Steamers	19 Schooners	1 Brigantine 1 Barge 1 Light Ship

Arrivals and
departures of
Vessels.

The number of vessels which arrived in the Ports of the New Province, and which sailed from them during the last ten years, is as follows:—

Entered.		Cleared.
1861,...	227	178
1862 ...	276	255
1863 ...	243	235
1864 ...	233	235
1865 ...	289	277
1866 ...	220	219
Previous to the Union of British Columbia and Vancouver Island in 1866, the only port of entry then in British Columbia, was New Westminster.		
1867 ...	1059	1066
1868 ...	921	951
1869 ...	864	896
1870 ...	814	835

After the Union, the Ports of Victoria, Nanaimo, New Westminster, and Burrard Inlet are included.

Vessels navi-
gating the
waters of
Columbia.

To the foregoing tables we may add a statement of vessels of all sizes trading in British Columbia. This table shows the nationality of each class of vessels, and their tonnage. For this information I am indebted to the Government of Columbia. It is as follows:—

Steamers.	
8 Coasting	British.
5 Inland (River Fraser) 3 only running	"
1 To and from San Francisco	"
1 To and from Puget Sound	American.
2 To and from Portland.....	"

17

Ships and Barques.

7 from England are generally chartered to carry lumber—3 by Hudson Bay Company, and an average of 4 by other British Merchants.

6 from and to San Francisco, are generally chartered to carry lumber—American.

21 to Australia, China, and South America, (in 1870)—6 British, 15 Foreign.

3 between Honolulu and Victoria—1 American, 2 British.

Schooners and Sloops.

28 Coasting,—British.

Tonnage.

8 Coasting Steamers	1182 tons	83 men.
3 Inland.....	452 "	22 "
7 Ships from England in 1870.....	3868 "	115 "
6 Traders to and from San Francisco	1320 "	60. "
21 To Australia, &c.....	10894 "	279 "
3 To and from Honolulu	893 "	24 "

The 21 vessels mentioned above to "Australia, &c.," are not regular traders. They are the vessels cleared in 1870.

In Appendix X will be found extracts from the Blue Book for 1870, containing fuller details respecting vessels, their nationality, tonnage, crews, &c., &c.

MANUFACTURES.

The manufactures of Columbia are few in number; but water power Manufactures, being abundant, it is certain that so soon as the requirements of the Province call for them, manufactories may be multiplied under advantageous circumstances. I shall treat this subject as I did that of ship building; although these branches of industry are only in their infancy, so to speak, it is well, in a statistical point of view, to give the information which we possess respecting the present condition of things. This information will prove useful at a later date, for purposes of comparison. The following table is a statement of the manufactories, mills, &c., at the principal places in Columbia, in the year 1870.

New Westminster.

- 3 Saw Mills—can cut 183,000 feet of lumber per day.
- 1 Grist mill—can grind 30 barrels per day.
- 1 Distillery—distils 300 to 400 gallons per month.

Hope, Yale, and Lytton.

- 2 Saw Mills—can cut 7,000 feet of lumber per day.
- 5 Flour Mills—2 can grind 23 barrels, the others 10 barrels per day each.

Lilloet and Clinton.

- 1 Saw and Flour Mill (combined)—can grind 60 barrels of flour per day, and cut 12,000 feet of lumber.
- 1 Flour Mill on Dog-Creek—can grind 2,000 pounds of wheat per day.
- 1 Saw Mill at Lilloet—can cut 5,000 feet of lumber per day.
- 1 Saw Mill at Clinton—can cut 2,000 feet of lumber per day.
- 1 Flour Mill at Lilloet—can grind 120 sacks in twelve hours.

Kootenay and Columbia.

- 1 Saw Mill, waterpower—in process of construction.
- 1 Bed Rock Flume—in process of construction.

Cariboo.

- 1 Steam Saw Mill, on William's Creek, 20 horse power—can cut 20,000 feet of lumber per day.
- 1 Steam Saw Mill, on Ditten Lightning Creek—can cut 20,000 feet of lumber per day.
- 1 Quartz Mill, on William's Creek, 3 horse power, 4 stamps of 450 lbs. each—can crush 4 tons a day.
- 1 Flour Mill, 20 horse power—can grind 50 barrels of flour per day.
- 1 Flour Mill, Soda Creek, water power—can grind 40 barrels of flour per day.
- 1 Saw Mill, Quesnel, water power—can cut 2,500 feet of lumber per day.

Nanaimo.

- 1 Saw Mill.

Victoria.

- 1 Iron Foundry.
- 2 Sash Factories.
- Gas Works.
- 4 Breweries.
- 2 Distilleries.
- 1 Soap Factory.
- 2 Tanneries.
- 1 Ship Yard.
- 2 Lumber Yards.

EXPORTS.

Exports.

Before passing on to the population of British Columbia, and after the statement of the produce and manufactories of the Province, I think it is expedient to state that in 1870, the exports amounted to \$208,364, exclusive of the gold, the amount of which is given above. The details of the exports will be found in Appendix Y.

POPULATION.

Population.

The population of British Columbia was greater some years ago than it is now. That was when the gold fever was at its height. According to the enumeration made, I think, in the month of March or April 1871, the population of Columbia was 8,576 whites, 462 negroes, and 1,548 Chinese, giving a total of 10,586, the distribution whereof throughout the territory is given in Appendix Z.

The total of 10,586 does not include the Indians, of whom I shall speak shortly.

Increase of the population.

The white and Chinese population increased by immigration during the year 1871 by from 1,500 to 2,000. This immigration is to be attributed to the discovery of the new gold mines of Peace River, district of Ominica; and, to judge by appearances, it is likely to continue during the coming season.

Disparity between the sexes.

In this population is observable the usual disproportion between the two sexes, which was remarked from the first in California and Australia. Thus, the number of men is 7,574 and of women 3,012.

Submission to the laws.

The population is remarkable for its spirit of order and submission to the laws. This state of things is to be attributed, in the first place, to the fact that the white population is composed in great part of men of education, many of whom have seen better days, and who are consequently less disposed than the majority of ordinary populations, in these distant regions, to avail themselves of every favorable opportunity of violating the law. It is also to

be attributed to the firm administration of the laws by the Chief Justice, whose name alone, at the time of the great immigration during the gold-digging excitement, was the terror of delinquents.

Although the magistrates entrusted with the census fulfilled the duty confided to them with care, it is undeniable that in so vast a country as Columbia, with such a scattered population, it is hardly possible to take a correct census. The names of many traders, miners, and fishermen were not registered, and consequently not included in the total number given as the result of the census.

The white population of Columbia is intelligent and industrious, and may unhesitatingly be compared with the population of any other part of Canada. If the progress of the Province has not been rapid, it is to be attributed much less to a want of energy on its part than to other causes. Of these causes the paucity of population is perhaps the principal for it has been found impossible, under existing circumstances, to obtain a considerable revenue, and so to be placed in a position to carry out great undertakings. This small population, however, did not hesitate to submit to great sacrifices to open that great highway from Yale to Cariboo, which gave, and still gives, comparatively easy access to the rich mines of the District of Cariboo, and which, for boldness of enterprise and solidity of construction at many points, is worthy of a great people. Suffice it to add, that this great Cariboo road, which in many places is cut out of the mountain side, at a height of from 600 to 1,000 feet above the Fraser or the Thompson River, which run at the base of the precipice, cost nearly a million and a quarter of dollars.

CHINESE.

The Chinese population is regarded with no greater affection in Columbia than in California, but is, at any rate, in the former country, not ill treated. The Chinese are an industrious, clean and laborious community. They are generally miners, working either on their own account or for the whites, or in service as laborers or domestic servants, most frequently in the latter capacity as cooks. Many of them are also employed, either on their own account or by others, in the transportation of freight from the lower Fraser to the mines. They live on little, and make a livelihood even in places from which the whites have had to emigrate lest they should perish of hunger. Those who dread the increasing immigration of the Chinese maintain that they are a population but little to be desired. They forget that the presence of the Chinese has contributed to reduce the price of wages in the mines. A Chinese there receives \$3 to \$3 50 a day, and a white man \$5. It is added that the Chinese leave nothing in the country. That is strictly true, if it is said of their dead, the ashes of which are scrupulously conveyed by them to China. But it is certain that the Chinese leave a great deal of money in the country, by their purchases, travelling, &c. During my trip to the Cariboo Mines, I saw a great number of Chinese, who were going to or returning from them, and in many cases they were travelling in stages, and halted like others at the stopping places to take their meals; and often, on land as well as on board the steamers, travelled as first class passengers.

INDIANS.

The census of the Indian population has not been made, but it is desirable that it should be so before long. That population is estimated at 30,000, 40,000, and even 50,000 souls. Persons who are in the best position to judge of the number of these Indians, such as the Catholic and

Their
number.

Protestant missionaries, gave me to understand, however, that that population would not at the present time amount to the highest of those figures. I conclude, therefore, that from 35,000 to 40,000 is probably the more exact number. However, the Hon. Chief Justice Matthew Baillie Begbie appears to think that for some years they have diminished in number. In a memorandum which he was obliging enough to prepare for me, the Honorable Judge gives most interesting details respecting the Indian tribes; and although I was able to verify by personal observation a number of the facts which he records, I prefer not to state them here myself, but to transcribe his memorandum in full in the body of this Report itself, in order that the information which I have to offer may be given in as complete a manner as possible. The following is his memorandum:—

MEMORANDUM BY CHIEF JUSTICE BEGBIE.

Indians found
in all parts of
the Province.

" Indian tribes are found everywhere, all over the Province. The main divisions, in one sense, may be taken to be the coast Indians, and the inland tribes. On Vancouver Island, I apprehend they are all coast Indians. There are apparently no interior parts fit for settlement by Indians. They may and do go inland for hunting deer, and lake fishing; but in most parts, the deer are to be found in sufficient quantity not far from the sea; and the sea fishing is much superior in quantity and nutritive quality to the lake fishing. On the mainland the conditions are reversed in great measure. The upper country is far superior for settlement and hunting purposes to the coast, and the large rivers abound with salmon, which run up to the Rocky Mountains. The lakes also afford abundant food during the season when the salmon are not running, and the wild berries which grow in great profusion and excellence are (especially the 'service berry') a staple article of food, being dried and stored for food and trade.

Probable num-
bers of coast
and interior
Indians.

" I cannot judge at all, of my own authority, of the number of the coast Indians. To the north of British Columbia, they are said to be in considerable numbers. In the parts of the Province, of which I have any personal knowledge, the Indians are exceedingly sparse, and annually diminishing (this includes all the country east of Fraser River). I should guess—but it is a mere guess,—that there are not 5,000 in the vast triangle between New Westminster, Kootenay, and Cariboo—400 miles from east to west, and 350 miles from North to South. But it is proper to state that in a recent report to the Bishop of the Diocese (Anglican), the Rev. J. B. Good says, (Lytton, 3rd May, 1870): 'I estimate the number of the disciples at large [Anglicans, at Lytton] young and old to be at least 2,000, 'Mr. Holmes having under him, in the Yale district, nearly as many more.' Yale and Lytton are fifty-seven miles apart. The latter attracts probably Indians from Lillooet, Nicola, and even from the Okanagan. Yale probably collects Indians on the Fraser River for thirty or forty miles downwards. But at least half of the Fraser River native population lies below that, and is probably attracted wholly by the Roman Catholic missions at St. Mary's, and at New Westminster; and there are two other thriving Roman Catholic missions, one on the east side of Okanagan Lake, and one to the north, near William's Lake. I should really think that these four stations influence as many disciples, as the two central Anglican stations; but I should be surprised if the four claimed 4,000 disciples. Mr. Good's whole report, however, is not before me, and it may not be intended to bear the sense here put. This is nevertheless the idea conveyed in the pamphlet from which I quote, which states 4,000 Indians under instruction.

" Referring to the continual entries in an old journal of the Hudson's Bay Company, preserved at Fort Langley, from the foundation of that first

"fort on the Lower Fraser River, in 1826-7, one would suppose that the coast Indians, tempted to frequent the Fraser for fishing, or for war, were at least three times as numerous fifty or sixty years ago as they are now. In the interior, whole tribal families have disappeared within the last few years, and it is probable that in certain districts *e.g.*, Lillouet and Okanagan, not one tenth, perhaps even not one twentieth, survive. In 1846, Mr. A. C. Anderson of the Hudson's Bay Company, advised against the Lillouet-Douglas Route for the Hudson's Bay Company's brigades, on account of the very great number of Indians they would have to pass through, estimating the number, at and about the Fountains (8 miles from Lillouet), at 4000 to 5000. I have never seen (1858-69) on the greatest occasions at Lillouet more than 400 or 500—many of whom had come forty or fifty miles—some 100 miles.

"One tribal family of about sixty individuals on Canoe Creek was, in 1862 or 1863, entirely destroyed by small-pox, with the exception of a single man. In the same epidemic, the Williams Lake families were reduced from 200 to below 100 individuals. Their wars are occasionally equally destructive. On more than one successful onslaught, every man has been killed, and only the unwounded women and children preserved as slaves—almost always, every man the victors could reach, was killed. At Comox, several years ago, on such an occasion, every man, woman and child was killed, except one woman, who fled to the bush. She was *enceinte*, and her child, a son, still survives; I have seen him. Of course his tribe was extinguished. They rear small families and the children often die. Accidents do much in such small adventurous societies; private quarrels do much; whisky and dissipation wear them to an early death, and sap the powers of reproduction; but the great devastators have been their cruel tribal wars, and, much worse, small-pox and measles. Vaccination has made a stand to secure them against the former; but measles are nearly as deadly, and even vaccination is as severe a malady with them as measles among Europeans. Eruptive disorders seem to overpower their constitutions. Wars have immensely diminished of late; there are deadly private quarrels; few tribal war expeditions. Indeed, I don't remember to have known of one.

"The habits of the Indians are exceedingly simple; probably such as are common to almost all societies in a low degree of organization. They appear to live very much on the "village community" system, as described in "Mayne's Ancient Law," at least as regards land and its produce, and their fishing grounds. The chiefs owe their pre-eminence partly to birth or family connections, partly to personal attributes and the choice of the tribal family or tribe. The chiefs appear to acquire their predominance of wealth by voluntary contributions, or "benevolences," from those who admit their authority, offered sometimes from fear, sometimes from flattery, sometimes perhaps from motives of attachment. They preserve their influence by measures of recklessness and severity, or of wisdom, but principally perhaps by the generosity or lavishness with which they re-distribute the wealth they have acquired; in fact, all this part of their polity very much resembles that of the Plantagenet Kings of England.

"The houses of the coast Indians are more roomy and substantial, being a sort of one story card castle (only firmly fastened), of axe-hewn lumber, divided into several compartments, of which one is occupied by each family. In the interior, the houses, or wigwams, are made of skins more or less dressed, old tent cloths, mats, &c. In severe weather, they take shelter in underground houses—circular pits, from 20 to 40 feet in diameter, and 8 or 10 feet deep, covered over with a substantial earthen roof, with a 3 feet circular aperture in the centre, which is the only ingress for the inhabitants and provisions, and the only egress for the inhabitants and the smoke.

"I don't believe anything else leaves the cave until it is finally abandoned in the spring. It may be imagined what havoc measles or small-pox will cause in such a pit. I do not remember any of these pits nearer the sea than at Hope. I have known at least one Indian, however, (St. Paul, near Kamloops, died 1867), who lived in a comfortable squared-log house, with three or four rooms, cows, chickens, pigs, and a decent garden; living in infinitely more comfort and pretensions than the officers of the Hudson Bay Company, in their fort, on the opposite side of the Thompson River. Like most savages, they possess enormous powers of appetite, and enormous powers of abstinence from food.

Indians' skill in boat-building and management.

"Everywhere, almost, the Indians have great skill in the manufacture and management of canoes. Those on the coast and the lower Fraser are perfect models of naval architecture on the wave-line principle. On the Columbia, they are built of the bark of the white pine, with the most modern bow, viz.—on the identical principle of 'Griffith's Patent,' only with a similar projecting snout at the stern.

Polygamy.

"Polygamy prevails among them, as among most non-Christian people, limited only by considerations of finance.

The Indians' want of religious notions.

"Alone among all intelligent savages of whom I have read, (for there is no doubt these are very intelligent, and with vast natural power of observation,) they seem to have no religion whatever, nor any idea of any God, except what has been imported. They have, however, some notion of spirits, restricted, I think, almost entirely to spirits of dead men, though there is one much spoken of, 'Shay,' or wind spirit, supposed to haunt a certain point on Harrison Lake. I have never heard of an Indian language which possessed in its vocabulary a word expressive of an abstract idea.

Slavery.

"Slavery is universally known; among tribes under European influence it is much retrograding. Slaves were almost all derived from wars; and, since wars have died out, the source of slavery is stopped. They are all of course devoted to whiskey, and to gambling. As a logical consequence from the absence of all indigenous religion, there are no indigenous forms of cursing and swearing. The natives have very readily adopted the habit, but they use, to our disgrace, none but English oaths and terms of abuse. Of these, of course, they have first learnt, and best remember, the lowest and the most obscene. Many of the northern Indians display considerable aptitude for carving, and others for handling metals. The astonishing accuracy of their eye may be seen in any canoe, for which they never have a model, nor do they ever ensure accuracy by a single measurement.

Compacts with Indians; what they have been and what could be done in that direction.

"I am not aware of any treaty having been made with any tribe on the mainland. I believe that some sort of arrangement, as binding in honor as a treaty, has been made at different times, with different tribes in Vancouver Island. I am not aware that it has been reduced to writing; I believe it has generally (where it exists) been in the form of a declaration of intentions by the local government.

"Reserves have been laid out both here and on the mainland, in the vicinity of tribal families, of land reserved for their use; but I am not aware of anything in the nature of a treaty. No general treaty would be possible, for there are a vast number of tribes, mutually more jealous and unintelligible than are the whites to them.

"They are in that state of powerlessness and respect for the superior power, numbers, and acquirements of the governing race, that any arrangements which that race would, consistently with self-respect and humanity, think proper, would readily be adopted by the native.

Their anxiety about their reserves of land.

"Their chief anxiety always is about their reserves of land which, perhaps necessarily, have not always been made in accordance with their

"wishes. The manner in which they hold and occupy land (village communities frequently occupying and cultivating irregularly detached plots) is a tenure scarcely intelligible to English notions of property in land at all; and they have an affection for particular little bits of land, (which seems a feeling common to humanity, savage or civilized), which, probably, is exceedingly inconvenient to a surveyor, and is not always, in our view, very reasonable. It is, in fact, prejudice.

"What would probably be most useful for them, and tend to preserve the numbers and improve the position of these very valuable inhabitants of the Province, would be to teach them settled habits, and, above all, agriculture. Mr. Duncan, at Metlakatlah, seems one of the most successful of all who have attempted this; but he is a man of rare gifts.

Suggestions for improving condition of Indians.

"I call the Indians very valuable inhabitants, because, 1st—they are admirably adapted for opening up a difficult country. Without them, it may be said, the country could not have been entered nor supplied in 1858-60. Until roads were made, no supplies were taken in except by Indians. 2nd—they are large consumers, in proportion to their means, of customizable articles. 3rd—they are our best tools for obtaining one great product of the country—furs.

Value of Indians as inhabitants of the country.

"But these qualities are exactly those which make it very difficult to civilize them. The Indian admires and desires to acquire our stores of knowledge and our means of wealth, and quite appreciates our comforts, both of clothes, and food, and dwellings. But his inborn capacity for enduring hardships, i. e., for enabling him to do without our novelties, the very qualities which render him so useful as a pioneer or hunter, make him tire of steady industry, and less influenced by its results. Accordingly, after years of cultivation, he constantly relapses, for a time at least, into a painted savage, and goes hunting and fishing—or starving—as a relaxation. These influences will, no doubt, prove to be hereditary, but there is more hope with the next generation than with this.

Difficulty of bringing Indians to conform to habits of civilized whites.

"It might be possible to establish, under adequate superintendence, small establishments to which any Indians might have access for one or more year or years, and where, during residence, they might be trained in speaking English, and in useful labor, receiving at the end of the year their due share, according to such a scale as might be established, of the surplus profit, after maintaining the establishment; or even, if no net profit was made, receiving something. It might not be deemed necessary that these establishments should be self supporting entirely. They should be limited to receive only a certain number, so that the Indians might perceive admission to be a favor. They should be bound for a fixed period, but not for too long,—say one year, subject to re-engagement. Whatever the method to be adopted, it should be under the superintendence of a practical man, not too lavish, and cautiously gradual.

In reference to the establishment of training schools for Indians.

"There has never, since 1858, been any trouble with Indians except once, in 1864, known as the year of the Chilcotin Expedition. In that case, some white men had, under color of the pre-emption act, taken possession of some Indian lands (not, I believe, reserved as such,—the whole matter arose on the west of Fraser River, where no magistrate or white population had ever been,—but *de facto* Indian lands, their old accustomed camping place, and including a much-valued spring of water), and even after this, continued to treat the natives with great contumely, and breach of faith. The natives were few in number, but very warlike and great hunters. They had no idea of the number of the whites, whom they had not seen. They shot down every white whom they did see, twenty-one I think, including a trail party of Mr. Waddington's—one or two escaped their notice. Six Indians were induced to surrender, and were hung. The

Troubles with Indians. What they have been.

Impr^o ability
of danger from
Indians.

"expense to the colony was inordinate. Except in such cases, which cannot affect the progress of society for good or evil, no trouble is to be apprehended. Occasional isolated murders will be committed, and the arrest of the murderers will be difficult and expensive.

"But for any general danger, the scattered position of the tribes, their thinness of population, their mutual enmity—even now, there is nothing better, among strange tribes, than an armed peace—and their variety of languages, making union for a common purpose impossible,—these considerations alone, make any danger from them inconsiderable, even if they were as hostile to the Government and to the authorities, as they are, in general, exceedingly well disposed.
"Victoria, 5th September, 1871."

THEIR TREATMENT, PRESENT AND FUTURE.

Treatment of
the Indians.

To complete the information as to the manner in which the Indians are treated, and also with a view to aid in deciding upon a plan for their future treatment, I beg to refer Your Excellency to Appendix AA, which is a memorandum prepared in January, 1870, by His Honor Lieutenant Governor Trutch, then Commissioner of Lands and Works of Columbia, and to Appendix BB, which is a letter addressed to me by His Lordship Bishop d'Herbomez, Vicar Apostolic of British Columbia. Your Excellency will observe, by the former document, what has been the treatment of the Indians by the Government of the Province, and by the second as well as by the first, what are the suggestions which are offered as to their protection and treatment in the future. I do not here, myself, express any opinion on this subject, preferring to leave to my colleague, who is more especially charged with the protection of the Indians. The initiation of the measures to be taken in regard thereto.

INDIANS AN IMPORTANT POPULATION.

Importance of
the Indians.

The Indians, as the Chief Justice has remarked, have been, and still are, and will long continue, an important population for Columbia, in the capacity of guides, porters, and laborers. They have learned, at least in the southern parts, and in those places which are inhabited by the whites, to regard authority with respect and fear. To them, the person of the British subject—"King George Man"—as they call him, is sacred, but such is not the case with the American from the United States. For one reason or for another, whether because they believe that the Indian races have been illtreated in the American Union, or because they are impelled by some other motive, the Indians of Columbia are not partial to Americans. They do not however attack them, for they know that the arm of the law would be able to reach them even in the depths of their forests.

Their charac-
ter.

The Indians, throughout the whole of that part of Columbia which I visited, are faithful and trustworthy. If you entrust a message or a letter to them, you may be certain that they will at once convey it to its destination. They are not equally industrious. In the hunting or fishing seasons, however, they are seen to work—the men in laying up a stock of meat, fish, furs, &c.; and the women in gathering fruits, which they dry. These provisions are stored by the Indians, 30, 40, and 50 feet above the ground, in the tops of trees, where they construct a description of storehouse, the sanctity of which is invariably respected,

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THEIR PROGRESS TOWARDS CIVILIZATION.

Some tribes have been induced to collect together in villages, and progress has in this way been made toward their civilization. Mr. Begbie speaks of the establishment founded by Mr. Duncan at Metlakatlah, and which I regret not to have been able to visit, being situated in the north of Columbia, where I was not able to go. But I saw at Victoria, the Convent of the Ladies of St. Anne, where a number of young female Indians and half-breeds receive an education which is as solid and as complete, as is obtainable in many establishments of the same class in other parts of Canada. I also remarked that at St. Mary, on the Fraser, between New Westminster and Yale, there was an important establishment founded by His Lordship Bishop d'Herbomez, comprising a college and a convent for young Indians and half-breeds, male and female. It was on the day of the re-opening of the classes, and it was a pleasant thing to see hundreds of canoes and pirogues, manned by Indians who came from a distance of 100 and even 200 miles to bring their children to these educational establishments. They now appreciate the advantages which their children derive from the education which they receive. I was also not astonished to learn that at the periods of missions more than 2,000 would be assembled together at one time. There is also at Caowchan a convent founded by the Rev. Mr. Rondeau, of Montreal, and intended for the education of young female Indians and half-breeds. As in the case of the Victoria and St. Mary Convents, education is here also imparted to the young girls by the Sisters of St. Anne.

On the other hand in certain other villages, for instance near Nanaïmo, where in one are found the Nanaïmos, in another the Euclatores, and on the main land the Seychelles, but a very small number of the Indians are Christians, and their morals are excessively lax. They sell their wives and daughters to the first comer. In Barclay Sound and its vicinity are found the Opitsishahits, the Sishahits, the Ohiahts, the Ucluclets, the Toquahts, and the Aichuklehts. In appearance they do not differ from the other Indians of the south of Columbia, but they are idolaters, practice polygamy and only abstain from thieving when there is nothing to their taste.

INDIAN TOMBS.

The Indians appear to hold their dead in great respect. They erect tombs, which generally consist of a wooden pent-house, under which is a canoe containing the ashes of the deceased. The canoe contains, in addition, cooking utensils, &c., and carved on wood may be seen rude representations of Indians with paddles, &c. Above the pent-house, floating in the wind are standards in the case of a chief; and if the deceased has been a great warrior, guns are hung upon it; if he has been a great hunter, the skins of wild animals are placed there; and if he has been an expert horseman, the skins of two or three horses bear testimony to his prowess. These tombs are placed at some distance from the main road, often upon an eminence; they are respected by all.

COSTUME AND APPEARANCE OF THE INDIANS.

The Indians whom I saw, and they were many, were generally well clothed. They must, as has been said, contribute largely to the public revenue by their purchases of merchandise, such as cloth, blankets, &c. When they set out to engage in fishing they are less particular about their dress. I saw

numbers without any clothes at all, handling their paddles with great dexterity, and seeming to believe that clothes impeded their movements, and were injurious to the success of their fishery.

Appearance
of the Indians.

The Indians of the south of Columbia are generally of a dark tint. They wear their hair long, and do not appear to be particularly clean. In this they differ from the northern Indians, whom I saw when going to Seymour's Narrows. The latter are of a clear tint, and are larger, stronger and more cleanly; in short they are a fine race.

Indians on
horseback.

The Indians of the lower Fraser, and those of Vancouver Island, move about either in canoes or on foot. Those of the interior, on the main land, travel on horseback, and in many cases raise horses, either for sale, or to carry merchandise from Yale to the mouth of the Quesnel, or to Barkerville.

INDIAN RESERVES.

Indian
reserves.

The Indian tribes do not appear to receive any presents from the Government of Columbia. The Government has, however, established reserves of land for their benefit; some of these reserves are well situated, and might, if sold, produce an important fund for certain tribes. And there can be no doubt that, as several of these reserves are situated in the immediate vicinity of Victoria, and of other centres of white population, it would be for the advantage of the Indians that those reserves should be sold, and that they should be removed to a distance from the towns, and induced to devote themselves to agriculture and to certain manufacturing arts.

Money
belonging to
the Indians.

I understood that there was in the Bank of British Columbia a sum of \$1,984 belonging of right to the tribe of the Songhees, opposite Victoria. It was the produce of certain leases, which the Government conceded to white men, of a part of the reserve belonging to that tribe. Except in special cases, such as that just mentioned, the whites cannot settle on the lands of the Indians. They are forbidden to do so by proclamations, acts and ordinances respecting the public lands.

SALE OF LIQUOR TO THE INDIANS.

Sale of intoxicating liquors.

The whites are also forbidden to sell intoxicating liquors to the Indians, but unfortunately illicit traffic in this respect is carried on upon a large scale. From cases that have come to light it is known that scoundrels and large canoes are engaged in this nefarious business. From Victoria the vessel proceeds to the upper part of the country, in the northern portion of the Gulf of Georgia, in order to be less liable to detection, and there confederates, either whites or Indians, are at hand to take charge of the casks of brandy or whiskey and convey them to the places where the Indians are encamped. The stipendiary magistrates inflict severe punishment whenever a trader is caught in the act, but unfortunately many of the guilty escape. This subject will not fail, I am certain, to receive the special attention of the Indian Department.

INDIAN LANGUAGES.

Indian
languages.

Before concluding this chapter in relation to the Indians, I must add a few words respecting their languages or dialects, which are very numerous. I need not say that during the five weeks that I passed in Columbia it was not possible for me to study these, so as to be able to speak of them from personal knowledge. I was, nevertheless, enabled to ascertain, from conversation with educated men, who have passed several years in British Columbia, and especially with Gilbert Malcolm Sproat, Esq., that their languages are

difficult and as numerous as their tribes. In addition to all these, from the moment the whites arrived in British Columbia, another medium of conversation was established, partly French, partly English, and partly Indian. This singular tongue, which is called the "Chinook jargon," has as its basis, besides the English and French languages, the language of the Haidahs (Northern Indians), which includes the Hygany, Massett, Skitigetts, Hanega, and Cumshevas tribes, and the language of the Chiheelis and Chinooks, who are southern Indians. The jargon is the language of commerce, and a knowledge of it is indispensable to all who trade with the Indians, or have dealings with them. And as our territory now extends to the Pacific, I consider it expedient to give with this report a dictionary of this Chinook jargon, which will be of use to those who go to Columbia, and is interesting as showing what transformations the Indian, English, and French languages have undergone on the Pacific Coast in consequence of the relations of the whites with the Indians. That dictionary constitutes Appendix CC.

Chinook
language or
jargon.

MR. SPROAT'S WORK ON THE INDIANS.

I cannot leave the subject of the Indians without calling Your Excellency's attention to a work published by Mr. Gilbert Malcolm Sproat, which I have already quoted. The title of this work, which is published by Smith, Elder & Co., of London, England, is "*Scenes and Studies of Savage Life*;" and although it does not treat of all the Indian tribes, as far as those of Vancouver Island are concerned, it gives in elegant language and in a highly interesting manner, valuable details as to their mode of life, their intelligence, industry, language, &c. These details are the more important from being the result of observations made by Mr. Sproat in the course of several years which he passed in the midst of the Indians, and from their being communicated by one who was perfectly in position to bring to bear a sound judgment in such matters.

Mr. Sproat's
work on the
Indians.

TREATIES WITH THE INDIANS.

Appendix DD. contains two treaties with Indian tribes which are given as specimens of the treaties which have been made with the Indians on Vancouver Island. It does not appear that any have been made with the Indians of the main land. Appendix EE. is a list of all the treaties which have been made.

Treaties with
the Indians.

PUBLIC WORKS.

I now pass on to the public works, buildings, and undertakings of Columbia.

They comprise:

1. Lighthouse, and buoys.
2. A dredge and a steamer.
3. Post offices.
4. Custom houses.
5. The Mint.
6. A Marine Hospital.
7. Court houses and jails.
8. A Penitentiary.
9. Legislative buildings.
10. Departmental buildings.
11. Governors' residences.
12. A telegraph line.

Public works.

13. Harbors.
14. A graving dock.
15. Improvement of the navigation of the Fraser.
16. The great Cariboo Road.
17. The Pacific Railway.
18. The conveyance of the mails.

LIGHTHOUSES AND BUOYS.

Lighthouses. The lighthouses are three in number, two fixed and one floating. The two fixed lights are those of Race Rock and Fisgard. The floating light is that at the mouth of the Fraser River.

RACE ROCK LIGHT.

Race Rock Lighthouse. Race Rock lighthouse is nine miles from Esquimalt Harbor, and is situated on nearly the extreme southern point of Vancouver Island, in the Strait of St. Juan de Fuca. This lighthouse, which was built in 1861, is provided with a catoptric light. It is about 118 feet above the level of the sea. It shows a white revolving light, appearing every ten seconds, and may be seen, in clear weather, from a distance of twenty-five miles. It is built of stone upon a little island about 300 yards across. It is painted black and white, in horizontal bands. It contains an alarm bell for use in fogs. The lighthouse is solid, but needs some repairs; on the outside the joints of the stone require pointing, and the keeper's residence also needs repair. A new lightning conductor should be put up, and the apparatus of the light and of the alarm bell both require improvement. At this lighthouse there are a principal keeper (Mr. Argyle), two assistants, and the keeper's wife.

FISGARD LIGHT.

Fisgard Light-house. Fisgard lighthouse is situated on the western point of the entrance to Esquimalt Harbor, which is three miles from Victoria. It was built in 1860, and is white; the light is a stationary one, of the fourth class, and in clear weather may be seen from a distance of ten miles. It is seventy feet above the level of the sea. The lighthouse, which is of brick, requires repair on the outside. The joints will have to be pointed, and the whole painted. The stairs leading from the water's edge to the lighthouse should be entirely rebuilt. A keeper (Mr. Bevis) and his wife reside here; this keeper was appointed in March, 1861; he is intelligent and industrious. He should be provided with a good self-indicating thermometer to continue the tables, which he keeps with great care.

FRASER RIVER LIGHT.

Fraser River floating light. The Fraser River floating light is situated at the mouth of that river. It was constructed in 1865. It has a fixed white light, which can be discerned in clear weather from a distance of fifteen miles. The light is about forty feet above the level of the sea, and is composed of eight lamps. It is useful not only for craft entering the Fraser River, but also for vessels sailing along a part of the eastern coast of Vancouver Island. This light stood in need of some slight repairs at the time I was in Columbia. It is attended by a chief keeper, three assistants, and the keeper's wife, who prepares meals for all.

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LIGHTHOUSES ASKED FOR.

In addition to the foregoing, it has been suggested that lighthouses should be constructed at the following points, viz. :—

1. At Cape Beale on the western coast of Vancouver Island. This lighthouse, which should be provided with a first class light and powerful fog whistle, would serve in the first place as a guide to navigators desirous of entering the Strait of Fuca, and prevent their being cast away on the coast; it would also serve to mark the entrance to Barclay Sound, which is a very deep harbor, and which, I have not the slightest doubt, will hereafter become one of the most important places on the Island. Indeed, from its outlet as far as the head of the Alberni Canal, for a distance of thirty-five miles Barclay Sound is navigable. It almost entirely crosses the whole breadth of Vancouver, being at its head only fourteen miles from the eastern coast of the island. Some years ago, considerable lumbering operations were carried on there, and so far as scenery is concerned, few parts of the world can present anything more worthy of observation.

2. A lighthouse with a fourth class light at the entrance of Victoria Harbor; that harbor being difficult of access in the night time, and being also the principal port of entry in the Province.

3. On Lighthouse or Entrance Island, outside the entrance to Nanaimo Harbor on the eastern side of Vancouver Island. The light placed here should be visible at a distance of fifteen miles. This lighthouse would be extremely useful, for at present navigators cannot enter that port during the night, and are compelled to anchor. This is the port resorted to in order to obtain coal from the two mines of which I have already spoken. Now, apart from the floating light at the entrance of the Fraser, there is no light, except the American lighthouse at Smith's Island, which is only of use to vessels navigating American waters. This new lighthouse would also serve to guide vessels crossing the Gulf of Georgia, and going to the east coast of Vancouver Island, towards the Fraser, or *vice versa*.

On this subject Captain Richards of the Royal Navy says :—

"Either Lighthouse or Entrance Island offers a good site for a lighthouse, which will soon be required at Nanaimo; but perhaps under all the circumstances, Entrance Island is the more eligible, as it would show a vessel her position in the Strait of Georgia, and serve to clear that dangerous shoal, the Gabriola Reef; by far the greater amount of traffic also would always be from the southward and eastward; a light in this position would lead a vessel through Fairway Channel, until the south point of Protection Island opened out, where a small harbor light would enable a vessel at night to take up a berth within the entrance, instead of remaining outside, where the water is too deep for anchorage."

4. A lighthouse, of minor importance, on Turn Point, Stewart's Island, would complete the lighting of the coast from Victoria to Nanaimo.

5. At Point Gray, at the entrance to the Harbor of Burrard Inlet, on the main land. This harbor is that most resorted to by vessels loading with lumber. It is a magnificent harbor, but one which, without a light at its entrance, can only be entered by vessels during the day-time. The light should be visible from a distance of at least fifteen miles, and would tend, together with the floating light at the mouth of the Fraser and that on Lighthouse Island, near Nanaimo, to make the navigation of the Gulf of Georgia much safer.

Reserves for lighthouses in various places have been set apart by the Government of Columbia. I hope to be able to give a list of these in the Appendices to this Report.

BUOYS.

Besides the lighthouses which I have mentioned, there are at Victoria, Buoya, at Nanaimo, and on the Fraser River, a number of buoys, which require

constant attention. Those on the Fraser River are specially liable to change their position, and this year they had to be repaired and restored to their respective places, complaints being preferred by the trade that they no longer indicated either the channel or the rocks.

Names, &c. of
keepers of ex-
isting Light-
houses.

In Appendix FF are given the names, rank, ages, salaries, and dates of appointment, of the persons employed at the existing lighthouses.

DREDGE.

Dredge.

I visited the dredge which is lying in the Harbor of Victoria, and has become the property of Canada. It is strong, and in good condition. It has not been used for several years, and consequently will require to be thoroughly overhauled before being employed again; an expenditure of from \$6,000 to \$7,000 will probably be necessary. I shall not here enter upon the history of this machine. I procured from the Government of the Province ample details respecting this dredge, which will be found in Appendix GG. By it, Your Excellency will perceive that the dredge with its four lighters or scows, and the steamer "Sir James Douglas," which belongs to Canada, cost \$92,000. The lighters or scows are considered to be too large and clumsy, and it is suggested that four smaller ones should be substituted for them; these would cost about \$2,000. The Honorable Mr. Pearse estimates the annual outlay entailed by this machine and the steamer "Sir James Douglas," at \$24,000. For my part I am satisfied that that outlay could be greatly diminished by allowing the steamer "Sir James Douglas" to continue in her present service, and by making use of a small tug when required.

STEAMER "SIR JAMES DOUGLAS."

Steamer "Sir
James Doug-
las."

The steamer "Sir James Douglas" performs the postal service between Victoria, Nanaimo and Comox, and serves the intermediate ports. She has a nominal strength of 40 horse-power; she measures a little more than 153 tons, 110 feet keel, and 18 feet 8 inches beam. She is built of wood with copper bolts and iron knees. She is very strong, and may be considered equal to the service of the inner waters of Columbia, but could never be used for service on the Pacific; her speed is from 8 to 9 knots an hour. She is commanded by Captain William Clarke, an excellent sailor, highly deserving of the confidence which is reposed in him. He has under his command an engineer, two firemen, three other sailors and an Indian. The vessel carries passengers and freight. The receipts and expenditure during the last six years have been:—

Receipts	\$76,756
Expenditure	74,540

In the amount credited to receipts is included a sum of \$4,200, which was the consideration demanded by the proprietor of an inferior steam vessel for the transportation of the mails. The expenditure does not comprise the amount of the interest on the cost of the vessel, nor her annual deterioration. Appendix HH contains fuller details respecting this steamer, which is also made use of to convey supplies to Race Rock Lighthouse.

POST OFFICES AND CUSTOM HOUSES.

Post Offices
and Custom
Houses.

The post offices and custom houses belonging to Canada in Columbia, are situated at Victoria, and at New Westminster.

BUILDING AT VICTORIA.

At Victoria.

The building in which the post office and custom house at Victoria are located is a wretched wooden one, entirely unfit for the purposes to

which it is devoted. The lot on which it is situated is 90 feet by 67, and belongs to the Government. It will be necessary to erect a suitable building, proportionate not only to the present, but also to the future requirements of the capital of the Province.

BUILDING AT NEW WESTMINSTER.

The corresponding building at New Westminster is sufficient for the At New West- requirements of that section. It requires some slight repairs, which will minister. make it still more fit for the purposes to which it is applied.

THE MINT AND ASSAY OFFICE.

Some years ago a Mint was established at New Westminster. All the The Mint, necessary machinery or apparatus was imported by the Government of Columbia and put in operation; the total cost being \$8,609. Some gold pieces were then coined; of these I saw two of the denomination of \$10, and two of \$20, each. The establishment was very soon closed, as it was found that it did not pay expenses. The machinery or apparatus is however carefully preserved. It appeared to me to be in very good order. It is under the care of Mr. Claudet, who has also charge of the Gold Assaying Office at New Westminster, of which there is a branch at Barkerville in the District of Cariboo. If the mines of Cariboo and of the District of Ominica continue to yield as rich results as is expected; and if, as is generally believed, the gold-bearing region on the eastern side of the Rocky Mountains is as rich and extensive as it is said to be, the question will arise whether it would not be for the interest of Canada to strike coin instead of allowing all that gold dust to be exported to San Francisco, there to swell the United States currency.

Appendix YY contains further information in regard to these buildings.

MARINE HOSPITAL.

There is no Marine Hospital in Columbia; but one of the conditions of Marine Hos- the Act uniting that Province with Canada, is that there shall be one located pital. at Victoria. Such an establishment is absolutely necessary. Hitherto, sick seamen have been received into the Royal Hospital at Victoria, and into that at New Westminster, which are purely local hospitals, intended for the necessities of the inhabitants of Victoria and of New Westminster and their vicinity. The outlay occasioned by the attendance which it is necessary to bestow upon sick sailors, is considerable, and should, as soon as possible, cease to be at the cost of the Province.

COURT HOUSES.

I visited the principal court-houses of Columbia, and satisfied myself that Courts of they are sufficient for the requirements of the Province. At Victoria, the Justice. courts are held in one of the public buildings, of which I shall shortly speak. The building is partly of brick and partly of wood. Some trifling additions, chargeable to the provincial treasury, will obviate the necessity of a new building for a number of years. At New Westminster and at Nanaimo the buildings used for the same purpose, without being models of architecture, are sufficient for the present.

JAILS.

Jails.

The Jails of Victoria and New Westminster, as well as the local Jails of Nanaimo and Yale, appear to have been built with care, the three former of wood and that at Yale of stone. These jails, without being, as secure or as strongly built as those in certain other Provinces of the Confederation, do not appear to allow of the escape of the delinquents confined in them more frequently than is the case in the older Provinces. They are managed with care and economy, and presented, at the time of my visit, an appearance of remarkable cleanliness.

PENITENTIARY.

Penitentiary.

There is no Penitentiary in Columbia; but in virtue of the Act for the union of that Province with Canada, the latter took upon herself the erection of one. At the present time, prisoners who have been condemned to imprisonment with hard labor are confined in the jails of Victoria and New Westminster, and during the day they are chained and employed, at New Westminster and its vicinity, in working on the streets and highways, and at Victoria in improving the property on which the residence of the Lieutenant Governor is situated. At one time it was the practice for them to work also on the streets of Victoria, but public sentiment was opposed to it, and has been respected by the Government, which has ceased to employ them in that manner.

The accommodation afforded by the present jails is becoming too scanty even to contain the prisoners, much more to admit of their being put to any occupation within the prison walls. If prisoners sentenced to more than two years' confinement could, as in the other Provinces, be sent to a penitentiary, the existing jails might suffice for delinquents sentenced to a shorter term of imprisonment; and the punishment would be regarded by the convicts, when they were aware that they would be sent to the penitentiary, as more severe, and it would, moreover, be possible in such an institution to classify and reform them.

Site of the Penitentiary.

The question now is, at what place the penitentiary should be erected. For my part, I have no hesitation in recommending New Westminster as the most suitable site. There is there, at what is called the Camp, some few minutes' walk from the centre of the town, and on the bank of the Fraser River, a considerable piece of land, which is public property, and which is, in my opinion, the most desirable site. Prisoners from Victoria might easily, and in a few hours, be conveyed thither by steamer, and those from the mainland could be brought from the interior, by the Cariboo road, as far as Yale, and thence by steamer to New Westminster. Should the land on that side of the Fraser not be sufficient, there is, on the other side of the river, immediately opposite, another very large reserve, which might be utilized for convict labor.

LEGISLATIVE BUILDING.

Legislative Building.

The Legislative building, though not a palace, is a very good edifice of brick and wood, sufficient for the requirements of the local Legislature. It is situated at Victoria, close to the centre of business; and upon the same lot of land, which is about seven acres in extent, are the buildings for the use of the law courts, and for the offices of the Lieutenant-Governor and the public departments of the Province. All these buildings and this land are evidently necessary for the Government and Legislature of Columbia, and an Order in Council should hereafter, in conformity with the Act of Confedera-

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tion, formally appropriate them for those purposes, similar action being also taken in respect to court-houses and jails.

GOVERNORS' RESIDENCES.

There are two Governor's residences in Columbia, that at Victoria and ^{Residence} that at New Westminster. This is to be attributed to the fact that, at no very remote period, the present Province constituted two distinct colonies, with separate governments. Those two colonies having been merged some time previous to Confederation, into the existing Province of British Columbia, the seat of government of the new Province was fixed at Victoria, and the pleasant residence at New Westminster, which, through the splendid hospitality of certain Governors, had become highly popular, was abandoned and placed in charge of a keeper, William Loudon, who receives for his services \$40 a month.

This residence at New Westminster is of wood, and is in tolerably good order. It might be utilized, as well as other wooden buildings which are in the vicinity, as a residence for the Director of Penitentiaries, if the penal institution be erected at the Camp, which adjoins this property. The building contains most of the furniture used by the last Governor of the colony. The remainder was removed to Victoria when the seat of government of the new Province was fixed there.

The official residence of the present Lieutenant-Governor of British Columbia is situated on an elevated site, in the immediate vicinity of Victoria. The edifice, which is spacious, is built partly of stone and partly of wood. It is in a tolerable state of repair, and is surrounded by large and beautiful gardens, the land attached to it being rather more than twenty-seven acres in extent. There is a ground-rent of ten pounds sterling on the property. The furniture in use by the last Governor of Columbia before Confederation remained in the residence, which was not, at the time of my departure from Columbia, occupied by His Honor the Lieutenant-Governor; it will, however, doubtless be so before long. The site, although the prospect is very fine, was not selected with a view to the present position of affairs. The upper portion of it is a rock, almost barren, upon which earth has been carted, which does not, however, everywhere conceal its arid nature. There is no water, which has therefore to be brought from considerable distances. Thus, the outlay of a Lieutenant-Governor there would necessarily be very large. This consideration was evidently not taken into account at the time when the Governor of the country had a high salary. Now that the salary only amounts to \$7,000, it follows that to enable the Lieutenant-Governor to reside there, he must be provided with a house easily supplied with water and fuel, and I have reason to believe that public opinion in Columbia tends in this direction. This property, like the others which I have already mentioned, should be transferred by Order in Council.

TELEGRAPH LINES.

By the Act completing the union of Columbia with Canada, the telegraph lines of that Province became the property of the Dominion, and are a charge upon it. These telegraph lines extend from Swinomish, in Washington Territory (United States) to Barkerville, at the extremity of the Cariboo Road. There is, besides, a branch from Matsqui to Burrard Inlet *via* New Westminster, in addition to a telegraphic right of way over the line belonging to the *Western Union Telegraph Company*, from Swinomish to Victoria, which comprises two submarine cables. This line of telegraph is 569 miles long, in addition to the submarine portion, which is

a mile and a quarter in length; it originally cost \$170,000. Besides this line, there is that from the mouth of the Quessel to the Sabine, but the has not been kept up, and is abandoned.

Title.

The title, in virtue of which the Government of British Columbia held this line of telegraph, constitutes Appendix I.I. of this Report.

This line of telegraph, nearly the whole of which I saw, appeared to me to be generally in good condition, only standing in need of ordinary current repairs; the instruments and batteries are good; the wire is No. 9 galvanized.

Your Excellency will observe by the title in Appendix I.I. that the line is under our control in virtue of a lease for 999 years, to which the Government may put an end by giving a month's notice. The telegraph line is a charge upon the Government, which has to maintain in a good state of repair, and at its own expense, the portion under water; and in consideration of this, all messages between Victoria and Swinomish are to be transmitted by the *Western Union Company* without charge.

Cost of Maintenance and Revenue.

The cost of the maintenance of this line from the 1st January, 1871, to the 1st July following, including salaries of superintendents, travelling expenses, wages of operators, and cost of repairs to the cables, was \$5,287, making the total for the year \$10,574.

On the other hand, the revenue during the same period was only \$2,394, or \$4,788 for the whole year. But the line to Barkerville having been opened only on the 15th July, and the receipts at that office up to the 25th August having been \$258, there is reason to believe that the revenue from the line will be considerably increased, while the additional expense will hardly be more than \$600. So that I conclude that the expenditure will be about \$11,250 a year, and the revenue about \$6,000. The revenue will, therefore, have to be supplemented by a vote of from \$5,000 to \$6,000, until such time as the revenue, in consequence of the opening up and peopling of the land, shall have increased.

TARIFF.

Tariff.

The tariff now in force on the line is as follows:

Tariff of the Telegraph Line of Columbia.

	Victoria.	Sehome.	Matsqui.	New Westminster.	Burrard Inlet.	Chilukweyuk.	Hope.	Yale.	Lytton.	Spence's Bridge.	Clinton.	83-Mile House.	Soda Creek.	Quessel.
Sehome	.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Matsqui	.50	.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
New Westminster	.50	.50	.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Burrard Inlet	.75	.50	.50	.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chilukweyuk	.50	.50	.50	.50	.50	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hope	.75	.50	.50	.50	.75	.50	.....	.....	.....	.....	.....	.....	.....	.....
Yale	1.00	.75	.50	.50	1.00	.50	.50	.....	.....	.....	.....	.....	.....	.....
Lytton	1.00	.75	.50	.50	1.00	.50	.50	.50	.....	.....	.....	.....	.....	.....
Spence's Bridge	1.25	1.00	.75	.75	1.25	.75	.75	.75	.50	.....	.....	.....	.....	.....
Clinton	1.25	1.00	.75	.75	1.25	.75	.75	.75	.50	.50	.....	.....	.....	.....
83-Mile House	1.25	1.00	.75	.75	1.25	.75	.75	.75	.75	.75	.50	.....	.....	.....
Soda Creek	1.50	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	.....	.....
Quessel	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.00	1.00	1.00	.75	.....
Barkerville	2.00	2.00	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.25	1.25	1.00	1.00	.75

STAFF.

The following is a statement of the names of the telegraph operators, and of their respective stations. I add to the list their ages, salaries and date of appointment, and I point out whether they are operators only, or whether it is their duty at the same time to see to the repairs of the line.

Stations.	Names of Operators.	Ages.	Monthly Salary.	Date of Appointment.	Remarks.
Victoria	F. H. Lamb, Supt.	29	\$100	1st June 1870.	
Sehome W. T.	W. Larman	39	65	1st Sept. "	Operator & repairer
Mataqui	John MacLure	40	90	1st Aug. "	" "
New Westminster ..	Geo. B. Murray	33	30	1st Sept. "	" "
Burrard Inlet	C. M. Chambers	31	nil.	1st June "	" "
Chilukweyuk	Jno. McCutcheon	29	40	1st Sept. "	" "
Hope	J. G. Wirth	50	30	1st Sept. "	" "
Yale	John Nicholles	17	40	1st Feb. 1871.	" "
Lytton	T. R. Buie	34	nil.	1st Sept. 1870.	" "
Spence's Bridge	Jno. Murray	35	nil.	1st April 1871.	" "
Clifton	J. L. S. Hughes	44	25	1st Oct. 1870.	" "
83 Mile House	Murdo Ross	31	40	1st Oct. "	" "
Soda Creek	Henry Yeates	39	80	1st Oct. "	" "
Queensel	A. Barlow	35	30	1st May 1871.	" "
Barkerville	J. B. Leighton	20	80	1st June "	" "

The operators at Burrard Inlet, Lytton, and Spence's Bridge do not appear in this list as receiving any salary, and the following is the reason:—

The branch from New Westminster to Burrard Inlet, was built by Messrs. Moody and Co., for their use, the Western Union Company furnishing the materials and Messrs. Moody and Co. paying the cost of construction. That arrangement was then made, it would appear, because the other establishments engaged in the lumber business refused to contribute their share. Messrs. Moody and Co. pay the operator and have, I am told, a right to send their despatches over that branch without paying, the line nevertheless belonging to the Government. I am satisfied that arrangements might easily be made with that respectable firm for placing this part of the telegraphic system on the same footing as the principal line.

The operator at Lytton has the right of sending his own messages without charge, in consideration of which he performs the duties of operator without salary.

The operator at Spence's Bridge performs the duty, it would appear, as a relaxation and receives no pay.

Mr. Lamb, the superintendent is an American citizen. He is an able and very efficient officer, and has had great experience in telegraphy. He also acts as the superintendent of the American line from Victoria to Portland, Washington Territory, and under an understanding with that company he divides his time and his services between that section of their line and the telegraph belonging to British Columbia, receiving \$100 a month for each of those lines.

Mr. Lamb's services are valuable, not only on account of his experience in the superintendence of a telegraph line, but also, and more especially, on account of his practical knowledge of the locality and of the method of constructing and repairing that line of telegraph. It would be desirable, however, that the time and services of the existing superintendent, or of an equally competent person should be exclusively devoted to our line; but in

that case, if I am to rely upon the information which I received, the whole salary would have to be insured to the person employed, that is to say \$200 a month.

MAINTENANCE AND REPAIRS.

Maintenance
and repair of
telegraph line.

The telegraph line is at the present time kept in a good state of repair by Mr. Lamb under the provisional direction of the local department of Lands and Works. The local Government allows Mr. Lamb the assistance of its officers and employés to maintain and repair the line; and this is the more easy from the fact that the telegraph line, throughout nearly its whole extent follows the course of the great Cariboo road.

I was informed in Columbia that it had been the intention to insert, in any new contract for the conveyance of the mails between Yale and Cariboo, a condition providing for the gratuitous conveyance of persons charged with the duty of repairing the line; and in that case, all telegraphic despatches necessary for the postal service, and required by post office officials in connection with that service, would have been transmitted free of charge.

New telegraph
office.

The opening of a telegraph office at Cache Creek is suggested. Such an office would be very useful for the maintenance and repair of the line, and would serve the already considerable and growing establishments on the east and south-west in the direction of Kamloops, the Thompson River, the Okanagan Valley &c. It would be almost absolutely necessary in order to communicate with the surveying parties, and for the construction of the railway. The monthly outlay would be \$75, but if the operator were also the postmaster of the district, the revenue of the office would be increased, and would probably, before long, considerably diminish the expenditure, if it did not entirely meet it.

BY WHOM THE LINE SHOULD BE ADMINISTERED.

By whom the
telegraph
should be ad-
ministered.

The question now arises whether the Canadian Government should continue to retain this line of telegraph under its management, or whether it would not be better to replace the whole in the hands of the local Government of Columbia, an annual sum being paid to that Government until such time as, in consequence of the country having become sufficiently populous, the telegraph line shall become self-supporting. My own opinion is that if the Federal Government continues to manage the line itself, the cost of working will be much greater than it would be to the local Government, which has already on the Cariboo road its superintendents, officers and employés charged with the duty of keeping that great medium of communication in a good state of repair; while the Federal Government would have to employ new hands, or convey the permanent employés over considerable distances, whenever repairs to the line became necessary. I am therefore inclined to think that it would be more satisfactory to the Government of Canada and to that of the Province, to leave the management in the hands of the local Government, who should receive an annual fixed sum from Ottawa.

HARBORS OF VANCOUVER ISLAND.

Harbors of
Vancouver
Island.

The principal harbors of Vancouver Island are:—1. Victoria; 2. Esquimalt; 3. Nanaimo; 4. Barclay Sound.

VICTORIA.

Harbor of
Victoria.

1. The harbor of Victoria derives its importance from the fact that Victoria, the capital, is built at its head. It would appear that it would have been much more reasonable, and advantageous for the future of the

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capital, that it should have been built at Esquimalt harbor in the immediate vicinity, which is a commodious and beautiful port, while that of Victoria is small and difficult of access. However, private interests without doubt originally determined the selection of Victoria, and as it is the principal port of entry, and that at which the customs duties of the entire Province are in great part received, it is important that the approach to it should be made safe.

In 1862 a commission drew up a report suggesting a plan for the improvement of this harbor (*vide* Appendix G.G.), and it was in consequence of that report that the Government procured a dredge, with scows and a tug-boat; but as I have already stated the scheme fell through in consequence of the excessive expenditure which its execution would have entailed on the Provincial Government, and the entrance of the harbor is therefore still obstructed by a bar of sand upon which vessels frequently ground, and which it will be necessary to remove in whole or in part. There are also some rocks opposite Deadman's Point, which should be blasted. On this subject Captain G. H. Richards, of the Royal Navy, says:—

"The entrance to Victoria Harbor is shoal, narrow and intricate, and with S.W. or S.E. gales, a heavy rolling sea sets on the coast, which renders the anchorage outside unsafe, while vessels of burthen cannot run in for shelter unless at or near high water. Vessels drawing fourteen or fifteen feet water may, under ordinary circumstances, enter at such times of tide, and ships drawing seventeen feet have entered, through only at the top of spring tides."

There are besides deposits of mud in the harbor which must be removed unless the harbor is to cease to be frequented by any vessels except small coasting craft. Should the Canadian Government cause this work to be carried out, the mud and stones removed in dredging the harbor might be deposited in that part of it which is called James' Bay, which has a superficial extent of some ten acres, and which might then become a valuable property. The local Government should transfer that property to the Federal Government, or should contribute to the cost of the dredging in consideration of James' Bay being made the place of deposit of the material dredged up, and acquiring thereby a considerable value.

Appendix JJ. is an extract from a report made in November 1868, by the Honorable Mr. Trutch on this subject.

ESQUIMALT.

2. The harbor of Esquimalt is considered the best harbor on the Pacific coast, north of San Francisco. It is well lighted and may be entered with facility either by day or by night, in fine or in stormy weather. It is the Canadian harbor at which the Pacific Squadron of the British Navy is stationed. It has an almost even depth of thirty-six feet, the bottom is excellent, and the harbor is perfectly safe and sheltered. Here fifty vessels of the line might anchor with ease.

Free water communication between the two harbors of Victoria and Esquimalt is only prevented by a tongue of land about 750 feet wide. It is a question whether at some later date it will not be necessary to cut a canal through that tongue of land, and thus connect the navigable waters of the two harbors. Esquimalt would then become, without question, the entrance to Victoria, as nature would appear to have intended. This is a subject for future consideration.

NANAIMO.

3. The harbor of Nanaimo is situated on the eastern coast of Vancouver Island, about sixty-five miles from Victoria. It is the port of that coast.

The coal mines, now being worked, are there situated, and in its neighborhood also lie the fine quarries of Departure Bay. Further importance attaches to this harbor in view of the fisheries, and especially of the whale fishery. As I have already pointed out, the harbor requires a lighthouse and one or two buoys to indicate the position of a submerged rock. To sum up, it is well situated, large and safe.

BARCLAY SOUND.

Barclay Sound

4. Barclay sound is the principal harbor on the western coast of Vancouver Island. It is but little known in Columbia at the present day, because the lumber trade which was carried on there has ceased. It seems to be feared that this harbor may be selected as the terminus of the Pacific Railway, and that in that case Esquimalt and Victoria would be shorn of their importance. For my part, I entertain no such dread. Whatever spot may be selected as the terminus of the Canadian trans-continental Railway, Esquimalt will not the less continue to be one of the finest harbors in the world, and that of Victoria will continue to enjoy the importance conferred upon it by the Capital of the Province.

However this may be, Barclay Sound opens into the Pacific Ocean itself. From its mouth to the head of the Alberni Canal it is about thirty-five miles long. At that point it is but fourteen miles from the eastern coast of Vancouver, and easy communication from it to that coast may be had through a pass in the mountains, and by Lake Horne and the River Quahlicum. In Barclay Sound and the natural canal of Alberni, the water is very deep, and once in the harbor the shelter is perfect. As I have said elsewhere this is one of the most picturesque harbors in the world. It is studded with large and small islets clothed with verdure; the hills are well wooded and on some lofty peaks eternal snows may be discerned. There are here some fishing establishments and at the head of the Alberni Canal, is a small town now deserted. Here formerly flourished the saw mills of Messrs. Anderson & Co. Then there were some 280 persons employed in the mills, the little town had a population of 600 souls, and in the adjacent waters rode large vessels of 1000 tons, which bore away to distant parts the timber which the district produced. Now nothing is to be seen but the Indian who formerly made the place his abode; and the civilization which once visited the spot would seem to have doomed it to barbarism or solitude. And yet if the terminus of the Pacific Railway is destined to be situated on Vancouver Island, it may be that the voice of civilization may again before long make itself heard in that region.

I have above stated that at the entrance of Barclay Sound, at Cape Beale, it is necessary that a lighthouse of the first-class should be erected. There can be no doubt that it will be requisite at a later date to place also a few buoys, and possibly to erect one or two lighthouses of third or fourth class, if the harbor should attain the importance, to which at a period more or less near, I am of opinion that it will rise.

HARBORS ON THE MAINLAND.

Harbors on the mainland.

The principal harbors on the mainland are,—1. Burrard Inlet; 2. Howe Sound; 3. Bute Inlet; 4. Milbank Sound; 5. The River Skeena; 6. The River Nass.

BURRARD INLET.

Burrard Inlet;

1. The harbor of Burrard Inlet is one of the finest on the Pacific Coast. It is situated on the Gulf of Georgia, only a few miles from New West-

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minster on the Fraser River. From the first narrows the harbor is nine miles in length; it is deep and safe. There it is that the lumber trade of Columbia is principally carried on. The timber which is cut in the district, lying between Lillouet and the Gulf of Georgia, reaches Messrs. Moodie and Co's mills at Burrard Inlet by means of an immense dry slide half-a-mile in length, which gives passage to the enormous saw-logs of which I have spoken elsewhere. Leaving behind them a long train of smoke, they plunge into the deep water, causing the spray to fly up into the air some thirty feet, and are then retained in powerful and perfectly secure booms.

This harbor is of very great importance, as it is frequented by a large number of vessels—by as many probably as all the other harbors put together—and as, being situated in the centre of the timber trade and near the outlet of the tract of country crossed by the Cariboo road, it must at a future period be the adjunct of an important town. The population at present consists of 400 or 500 whites, and 600 or 700 Indians. Captain G. H. Richards of the Royal Navy speaks of it in the following terms:—

"Burrard Inlet differs from most of the great sounds of this coast, in being extremely easy of access to vessels of any size or class, and in the convenient depth of the water for anchorage, which may be found in almost every part of it; its close proximity to Fraser River, with the great facilities for constructing roads between the two places, likewise adds considerably to its importance. It is divided into three distinct harbours, viz.: English Bay, or the outer anchorage; Coal Harbour, above the first narrows; and Port Moody, at the head of the eastern arm of the inlet."

A lighthouse is required at the entrance of the harbor, and some buoys will also be necessary at other points.

HOWE SOUND.

2. Howe Sound is a harbor immediately to the north of Burrard Inlet. Howe Sound. I did not visit it, and cannot therefore speak of it from personal knowledge. If, however, I may rely upon reports which were made to me, it is difficult of access as compared with Burrard Inlet. It is separated from the latter by Bowen Island, which is situated at its mouth, and which forms the north-west boundary of Burrard Inlet. It cannot be looked upon as a harbor of any great importance, in view of the immediate vicinity of Burrard Inlet, which is the natural port of the whole district.

BUTE INLET.

3. Bute Inlet is much further to the north than Howe Sound, and Bute Inlet. receives the waters of the River Homatheo. The harbor is surrounded by lofty mountains, and may hereafter attain some importance, especially if the Pacific Railway should pass in the vicinity. Between its outlet and Vancouver Island is situated Valdès Island.

MILBANK SOUND.

4. Milbank Sound lies still further to the north than Bute Inlet, and is Milbank only mentioned here to be of record, for at the present time the harbor is of no importance. Still, if the gold mines of the Peace River continue to yield well, and to attract the gold-mining population, as appears likely to be the case, one of the routes followed by the miners being that by the Straits of Georgia and Johnstone, Milbank Sound may become valuable as a harbor of refuge, and perhaps also as a point of departure for the interior.

RIVER SKEENA.

River Skeena. 5. Steam vessels from Nanaïmo now ascend the River Skeena. It is one of the routes selected by miners in order to reach the District of Ominica (Peace River). This river is acquiring importance, and will probably require some lighthouses and buoys. It will be necessary to establish over this route a regular postal service for the miners.

RIVER NASS.

River Nass. 6. The River Nass is a little further to the north than the Skeena, and derives a certain amount of importance from its giving access to a more northern region than that near the Skeena, and from there being reason to believe that that region is also rich in gold mines. Both are valuable also in respect of the fisheries; they are navigable over a considerable part of their course. They receive the waters from the Lake, or from the vicinity of the Lake Alal, which is on the high lands. The River Nass is quite close to the frontier of Alaska, which by no means detracts from its importance. The steamer "Union" ascended it in 1865 to a distance of more than 25 miles from its mouth.

GRAVING DOCK.

Graving dock. The graving dock is one of the public works to which the highest importance is attached in Columbia, at least in Vancouver Island. That work is specially mentioned in the conditions of union between that Province and Canada. It is there said:—

"The Dominion Government shall guarantee the interest for ten years from the date of the completion of the works, at the rate of five per centum per annum on such sum not exceeding £100,000 sterling, as may be required for the construction of a first-class graving dock at Esquimalt."

Site of the dock.

The site of this dock having been thus designated, I made it my duty personally to examine the harbor of Esquimalt, and to ascertain for myself what place was considered the most suitable by scientific men. Admiral Farquhar, without whose kind assistance, most courteously rendered, in placing his gunboats at my disposal, I should have found it quite impracticable to visit many points of interest in the Province, was good enough to point out to me himself the site of the future graving dock. The place would appear to have been made expressly for the purpose; it is called Lang or Constance Cove, and is situate inside the harbor. The bay or cove is perfectly sheltered, and is not exposed to be attacked by an enemy. A commission composed of naval officers, appointed in 1867 by Admiral Hastings, made a minute examination of the spot. That commission reported that the soundings shewed that there were no stones or rock to blast. At flood-tide there are twenty-four feet of water, and the bottom is excellent and hard, consisting of sand and shells.

Necessity for its construction.

The construction of this dock is absolutely necessary for the navy as well as for the merchant service. British frigates stationed on the Pacific, are at present obliged to proceed to the United States (San Francisco), to be docked. The cost of the docking there is very great. Not less than £30,000 sterling has been expended in two years in these repairs. The expenditure of that enormous sum at Esquimalt, supposing there had been a dock in existence, would have yielded to the English Government much more satisfactory results, for it would have sufficed for a much more thorough refitting than the vessels actually underwent. Moreover the necessity for going to San

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Francisco to dock vessels, must, as a natural result, cause the docking to be less frequent, and thereby render the British naval service less effective in that part of the globe.

It may perhaps be asked why Esquimalt was selected as the site of the graving dock, in preference to Nanaimo, or Burrard Inlet. In reply to this question, I was told that the last four British admirals on the station had strongly recommended that course to be adopted, and that Esquimalt should be the rendezvous of the British navy on the Pacific. It was stated, in addition, that this place afforded great advantages for building, apart from the fact that it is the first harbor reached by vessels from the Pacific, after their entrance into the Strait of San Juan de Fuca. It is also believed that, Esquimalt being easy of access, vessels from Washington territory would find it advantageous to go into dock there.

It is true that, at Nanaimo, tides rising very high (18 feet in the spring), and stone being found in the vicinity, a graving dock could have been constructed with tolerable ease, but, on the other hand, it is stated, that locality would not have been as convenient for the navy, or for vessels frequenting Puget Sound.

Why Esquimalt was selected.

Since my departure from British Columbia, the Provincial Government has called for tenders for the construction of the dock in the following terms:—

"The Government of British Columbia invite tenders to be sent in to the Lands and Works Office, Victoria, up to noon of the 20th day of March, 1872, for the construction of a graving dock at Esquimalt, British Columbia, under the guarantee provided in the twelfth section of the terms of union of this Province with the Dominion of Canada, which section is in the following words:

"The Dominion Government shall guarantee the interest for ten years from the date of the completion of the works, at the rate of five per cent. per annum, on such sum not exceeding £100,000 sterling, as may be required for the construction of a first-class graving dock at Esquimalt.

"The dock is to be of a clear length of not less than 150 feet, a clear breadth of 90 feet at top and 50 at bottom, and affording a depth of water, at ordinary high tide, of not less than 24 feet on the sill, and to be substantially built upon a site to be selected, and provided by the party or parties tendering, subject to the approval of the Government. Parties tendering are required to specify the time within which they propose to complete the dock.

"Tenders are to be sealed, superscribed 'Tenders for Esquimalt Graving Dock,' and addressed to the Chief Commissioner of Lands and Works, Victoria, British Columbia, and to be accompanied by plans and drawings, shewing the exact dimensions of the dock proposed to be built, the mode of construction and materials to be used therein.

"Parties desirous of tendering, but who may decline to do so under the guarantee above named, as insufficient, are invited to tender on the basis of such supplemental guarantee by the Provincial Government or other financial inducement as they may suggest."

Fears appeared to be entertained that the guarantee afforded by the Canadian Government would not be sufficient, but on the other hand the importance of having the dock, not only to Canada generally, but especially to the Province and to the Imperial Naval Service, was thoroughly appreciated. And there appeared to be a conviction that the English Government would assist in its construction, and that the local Legislature would not fail to manifest, by substantial tokens, the interest that it felt in the matter.

Appendix KK contains the correspondence which has passed on the subject between the Admirals and the Governors of Columbia since 1867.

IMPROVEMENT OF THE FRASER RIVER.

The "Two Sisters."

In the Fraser River between Hope and Yale, that is to say, about three or four miles from Hope, and about eleven miles from Yale, there are two rocks known as "The Two Sisters." These rocks are a great impediment to navigation, and one of them should be removed. Hon. Mr. Pearse made a memorandum respecting them in 1868, and recommended that the one called the "Port Sister" should be blasted. He says:

"This survey shows that there would require 3,762 cubic yards of blasting to be done to bring the rock to the level of the water on 9th October. The water has never been known to be so low at the same time of year. If the blasting were down three feet below this level, there would be no impediment, except from ice, to the navigation of the river by the present class of steamers throughout the year. To effect this object, there would require to be blasted 692 yards, (cubic) making a total of 4,454 cubic yards. There could be no better time for undertaking this work than the present, owing to the low stage of water. The three feet referred to could be got out between this and March next, during which month the water in the river is at its very lowest. . . . The rock is very hard, but is throughout more or less rent by atmospheric agency. The water in the main channel is very deep—sixty-two feet in the middle. That in the western channel averages about four feet six inches; whilst below the Port Sister, there is a shoal for about one hundred yards, with about five feet of water over it, and immediately beyond the depth is sixty feet. These conditions are very much in favor of the work in my opinion, because a very great deal of the rock taken out might be left, either on the shoal, or in the western channel,—without any detriment to the river."

Probable cost of the work.

Mr. Pearse, in September, 1871, estimated the cost of this work at \$6,000 "according to the present price of labor, powder, &c." It is probable that the improvement in question could be effected for that sum, or for a sum of \$7,000.

CARIBOO ROAD.

Cariboo Road.

The Cariboo Road, to which I have alluded above, is one of the public works for which the new Province of British Columbia deserves the highest honor. It is a road which may be travelled in carriages and leads from Yale, on the Fraser, to Barkerville, its terminus. Without personal inspection, no idea can be formed of the difficulties which had to be surmounted in the construction of this road. It was built in great part on the scarp of the mountains which border on the Fraser and Thompson Rivers, and on many sections of the route these precipices are so abrupt, and offer so little facility for cutting out a road except at the cost of an enormous sum of money, that it has been found necessary to form the substructure of the road of crib-work, which has been attached to the almost perpendicular sides of the mountains. The plan adopted having been to follow the rivers, it is thought that the road is longer than it should be. It is, however, the only road establishing communication between the Lower Fraser and the interior of the country, and although it is very much travelled, and is but from fifteen to twenty-five feet wide, it is generally in good order, and accidents rarely occur. This is the more astonishing when one remembers that the road, for a great part of its course, presents either on the right hand or on the left, precipices from 500 to 1,000 feet in depth.

Over this road, which cost more than a million of dollars, is conveyed everything which is required at the mines, or which is brought from them. Cost of the road.

The mode of conveyance is, for passengers, by stages drawn by four or six horses, and for merchandise, by packed trains of two, three or four great waggons, drawn by ten or twelve mules, or by sixteen or eighteen oxen. There are packed trains composed exclusively of mules, each of which carries a certain weight, the goods or merchandise being strongly bound on the back of the animal. The packed trains travel at a foot's pace, some few miles a day, and at four or five o'clock in the evening, the muleteers stop on the road, and unharness their beasts, the harness being left where the animal halts; the cattle are turned out to graze till morning, and the muleteers, who are either whites, Indians or Chinese, camp at the side of the road near a stream, which they never neglect to select for the purpose. The unavoidable slowness with which merchandise is conveyed makes the cost of transport very great. And, therefore, the miners look forward eagerly to the building of the Pacific Railway, which will shorten for them, whatever route it may follow, the distance to be travelled, and will in that way make their labor more remunerative. Mode of conveyance.

I was informed that there were on the Cariboo road, about 20 ox-trains, of 16 head of cattle each, 25 to 30 horse or mule trains, of 10 head of cattle each, and at least 400 horses or mules without vehicles, all engaged in conveying goods and merchandise. Number of beasts of burden employed.

BRIDGE ON THE QUESNEL RIVER.

At the Quesnel River the road is interrupted, the crossing being effected by means of a scow. The crossing is costly, slow and often difficult. A bridge is absolutely necessary here, and as the Cariboo Road is, of necessity, under the control of, and a charge upon, the Provincial Government, I only mention this want that it may be of record. I have, however, reason to believe that the Provincial authorities are fully aware of the necessity of this bridge, which, moreover, is demanded by the press. The bridge would probably cost \$15,000. Bridge necessary across the Quesnel River.

CANADIAN PACIFIC RAILWAY.

The Canadian Pacific Railway is the most extensive public undertaking in connection with British Columbia, that Canada has promised to see carried into effect, and it is also that from which we may expect to reap the greatest advantage, for by it all the Provinces of the Dominion will be united, and form one and the same nation, in the true sense of the word. The trade of Europe and Asia must necessarily be attracted to that road, and moreover, in making accessible the vast and beautiful territories of the North-West and Columbia, the emigration of Europe, and, it may be, Asia, will see thrown open to it an easy route by which to reach those valuable prairies and rich mineral lands, bringing in its train that reinforcement of population and riches of which we stand in need. Pacific Railway.

The clause relating to this work, in the terms of Confederation, is as follows:— What it is to be.

"The Government of the Dominion undertake to secure the commencement, simultaneously, within two years from the date of the Union, of the construction of a railway from the Pacific towards the Rocky Mountains, and from such point as may be selected East of the Rocky Mountains towards the Pacific, to connect the seaboard of British Columbia with the railway system of Canada; and further to secure the completion of such railway within ten years from the date of the Union."

What is
thought of our
North-West
Territory.

I shall not repeat here the reasons which decided, and justly decided, the Canadian Parliament to undertake this Railway. Those reasons are perfectly well known; but I find in a pamphlet published under the auspices of an American Company, which has begun the construction of the "Northern Pacific Railway," a detailed account of some of the sources of the revenue which it hopes to obtain, of which I think it worth while to embody in this report the following extracts:—

"Where the road crosses the Red River of the North, it taps 1,500 miles of inland navigation, down the Red River, through Lake Winnipeg, and up the Saskatchewan to the foot hills of the Rocky Mountains. Light draft steamers have long navigated this route. Along the greater part of this water-way the soil is good, the climate like that of Minnesota, and the settlements numerous. The trade of this vast region beyond the national boundary, including the transportation of supplies for the Hudson's Bay Company, will at once and permanently form part of the business of the Northern Pacific Road."

What is the
nature of the
Pacific Terri-
tory.

After so outspoken and true a eulogy on the North-West Territories, it is interesting to hear what the Company says about the Pacific territories:—

"The summer isothermal line of 70 degrees, which in Europe passes through southern France, Lombardy, and the wheat-growing region of southern Russia, strikes the Atlantic coast of the United States at the east end of Long Island, and, passing through central Pennsylvania, Northern Ohio and Indiana, diverges north-westerly, and runs up into the British Possessions to latitude 52, at least 360 miles north of this road."

"The fact of this mildness of climate is abundantly established. Nowhere between the Lakes and the Pacific is the climate colder than in Minnesota, and this great State is not surpassed as a grain-growing region, or in healthfulness of atmosphere. The seasons of Dakota are very similar to those of Iowa, and from Dakota westward the climate steadily modifies until in Oregon and Washington territory there is almost no winter at all, aside from a rainy season as in California."

"This remarkable modification of climate, the existence of which no well-informed person now questions, is due to several natural causes, chief among which are probably these: First. The mountain country lying between the 44th and 50th parallels is lower by some 3,000 feet than the belt lying immediately south. The highest point on the lines of the Northern Pacific Road is 3,300 feet lower than the corresponding summit of the Union and Central Line. Both the Rocky and the Cascade ranges, where they are crossed by the Northern Pacific route, are broken down to low elevations, compared with their height four hundred miles southward. This difference in altitude would in itself account for much of the difference in climate, as three degrees of temperature are allowed for a thousand feet of elevation. But, second, the warm winds from the South Pacific, which prevail in winter, and (aided by the warm ocean current corresponding to our Atlantic Gulf Stream) produce the genial climate of our Pacific Coast, pass over the low mountain ridges to the north of latitude 44°, and carry their softening effect far inland, giving to Washington territory the climate of Virginia, and to Montana the mildness of southern Ohio."

SUPERIOR ADVANTAGES IN FAVOR OF A CANADA LINE.

Superior ad-
vantages
which our
territory
affords for a
railway.

Similar causes produce similar results at Vancouver Island and in a great part of Continental British Columbia. There is, however, a difference in favor of our country—it is this:—on the Union and Central Pacific Railway the highest elevation is 8,240 feet above the level of the sea, and on the proposed Northern Pacific Railway the highest elevation would be a little less

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than 5,000 feet, whereas on the Canadian Pacific Railway the Rocky Mountains may be crossed at Tête Jaune Cache or Leather Pass at an elevation of only 3,760 feet, or at Howe's Pass at an elevation of a little more than 4,000 feet above the level of the sea.

SURVEY.

So soon as Columbia was united to Canada, in the month of July last, Survey parties of engineers sent out by my department, under the control of Sandford Fleming, Esq., as Chief Engineer, commenced operations not only on the Pacific side, but also from Lake Nipissing to the Rocky Mountains. As the Chief Engineer will submit a report of his proceedings, and of the result of the examination made by the engineers acting under him, with a view of placing him in a position to indicate the general line which the Canadian Pacific Railway should follow, I shall refrain from entering here into any details on the subject.

PASSES IN THE ROCKY MOUNTAINS.

It is, however, understood that the Railway must necessarily pass either by Tête Jaune Cache, in latitude 52 degrees 48 minutes north, or by Howe's Pass in latitude 52 degrees 20 minutes north, those being considered to be the two passes which are the most practicable and the least elevated.

The Honorable Mr. Trutch, the Lieutenant-Governor of British Columbia, inquired into the subject in 1868, and his report to the government of the day is replete with so much valuable information, that I consider I cannot do better than attach it hereto as Appendix LL.

By one or other of the passes named the Canadian Railway must be carried towards the Pacific, so as to connect the seaboard of British Columbia with the railway system of Canada.

Passes in the Rocky Mountains.

Hon. Mr. Trutch's Report.

TERMINUS OF CANADIAN PACIFIC RAILWAY IN BRITISH COLUMBIA.

With regard to the question of the location of the western terminus of the Canadian Pacific Railway, I shall confine myself to a reference to the various localities that have been pointed out as well adapted for the purpose :

PROPOSED TERMINUS ON THE MAINLAND.—BURRARD INLET.

If it were found impracticable for the Railway to cross from the mainland to Vancouver Island, or if it were decided not to adopt that course, it might be that Burrard Inlet or Howe Sound should be the point selected.

Those two harbors, as I have stated elsewhere, are close to each other, and if the Railway were not to have its terminus on Vancouver Island, I incline to the opinion that Burrard Inlet should have the preference. It is a magnificent harbor, the centre of the timber trade of Continental Columbia, and the most accessible port from the valley of the Fraser. The location of the terminus at that place would of necessity give a great impulse to New Westminster, the former capital of Columbia. Burrard Inlet would also be perfectly accessible from the district situated between Howe Sound and Lillooet; for, if I am correctly informed, there is easy communication between Howe Sound and Burrard Inlet by means of a pass known to be in existence by many persons at Burrard Inlet. The harbor of Burrard Inlet would be easy of access for vessels from the Pacific, and would be subject only to the following disadvantages :—1. Being at a distance of 152 miles from the entrance of the Strait of Fuca; 2. Compelling British vessels to pass beneath American batteries, should the question of the Island of San Juan not be decided in our favor; 3. Not being on Vancouver Island.

Terminus on the mainland. Terminus at Burrard Inlet or Howe Sound.

BUTE INLET.

Terminus at
Bute Inlet.

I simply mention Bute Inlet, for I do not imagine that the line of the Railway would terminate there, supposing it were not to be continued to Vancouver Island. If however, as some suggest, a crossing should be established here by which powerful vessels could take railway cars across the Strait, Bute Inlet would probably serve as a terminus; although I must say that if the cars could be conveyed to Vancouver Island, the Pacific Ocean shipping would prefer the Vancouver Island terminus, as they would thus be spared a long voyage in the inland waters of Columbia.

TERMINUS ON VANCOUVER ISLAND.—ESQUIMALT.

Terminus at
Esquimalt.

If the terminus is to be on Vancouver Island, Esquimalt Harbor affords very great advantages which none will deny. In the first place the harbor is only sixty-five miles from the entrance of the Strait of Fuca, and although the shore of the strait opposite Vancouver Island is United States territory, yet the width of water (16 miles) renders the navigation quite secure. Esquimalt is besides a perfectly safe harbor and of sufficient extent to serve as the terminus of our Pacific Railway. It would be easy to defend in case of trouble, and vessels frequenting it might easily reach the Pacific, where they would receive the protection of the Imperial fleets. It is true that to get to it from Bute Inlet, the line of Railway would have to be longer than if the terminus were fixed at Barclay Sound, but the advantages afforded by Esquimalt are so superior that it would be false economy not to carry the line there. And it must not be forgotten that besides the advantages which I have enumerated, the immediate vicinity of the capital should tend to the selection of Esquimalt if the Railway is to be continued to Vancouver Island.

BARCLAY SOUND.

Terminus at
Barclay Sound

It would be well however, in locating the line, not to lose sight of the fact that the traffic over the Pacific Railway, must necessarily become very considerable if, as we expect, the road is used to transport the produce of China and Japan to a great part of North America and to Europe. And why should that trade escape us, when we see that the promoters of the Northern Pacific Railway of the United States count on that traffic, because their road will be shorter than the other lines terminating at San Francisco, and because Puget Sound, their Pacific terminus, is further north than San Francisco, and from that very fact the distance between Puget Sound, and China being much less than the distance between San Francisco and China? Now, as to geographical position, Esquimalt and Puget Sound are exactly the same, and we shall besides have the advantage of having a Railway which will be shorter, less costly as to construction, and less costly as to maintenance and working, as the altitudes to be surmounted will be less formidable, and as we shall not have to cross the great American desert. We may therefore reasonably count upon a large portion of that immense trade, and it may be that we shall then find that it will be well not to rely on a single port of entry. Barclay Sound, at the eastern extremity of the Alberni Canal, if it could be made accessible to the railway, would, under these circumstances, be possessed of great importance, for it could afford accommodation for many hundreds of vessels.

RIVER SKEENA.

Terminus at
the River]
Skeena.

I am aware that the entrance of the River Skeena has also been mentioned as a possible terminus for the Canadian Railway. It is perhaps possible, but it is not probable, that it will be chosen. Such a terminus would be

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much too far north and would subject vessels to a long and expensive course of inland navigation. For another reason, it would, in my opinion be a bad selection, for if the American Northern Pacific Railway is to terminate at Puget Sound, the latter spot would naturally have the preference; for when vessels reached the latitude of the Strait of Fuca, they would most certainly shape their course for the Strait in which the navigation is easy and safe, instead of sailing five or six degrees to the north to reach the mouth of the Skeena. This location therefore is not to be thought of.

RAILWAY BRIDGE AT SEYMOUR NARROWS.

In the event of the terminus being fixed on Vancouver Island, an important work would have to be carried into execution; that is, a bridge at Seymour Narrows (Johnstone Strait). Being aware of the importance which was attached to this question, I considered it advisable that I should visit the spot and be able to give more certain information on the subject, than was already available. I proceeded thither accordingly on board the *Sir James Douglas* in company with the Lieutenant Governor, Hon. Mr. Trutch. The strait is from 1800 to 2000 feet in width, with a current running from six to eight knots an hour. The depth varies from seventeen to sixty fathoms, and the tide rises about thirteen feet. At a distance of from 600 to 800 feet (one-third of the entire distance between the two shores) from Valdés Island which, with Vancouver Island forms the strait at this point, there is a rock which is said only to have been discovered two years ago. At low water there is eighteen feet of water over this rock. It is needless to say that I was not able to measure the rock, or to ascertain if it was adapted to serve as the foundation of the pier of a bridge over which the trains of the Pacific Railway might pass. If after examination it is found that that rock may serve as the foundation of such a pier it is likely that the problem of a bridge at this point will have been favorably solved. The cliffs at this part of the strait appear to be from 100 to 125 feet high.

Bridge at Seymour Narrows (Johnstone Strait.)

THE TIDES.

As the question of the tides may play an important part in connection with this subject, I consider it expedient to annex, in Appendix MM, what Captain George Henry Richards says in reference to the subject in his *Vancouver Island Pilot*.

The tides.

TABLE OF DISTANCES.

It is also well to give here a table of distances, which will be of use in determining the advantages offered by the several places designated as possible to be selected as the terminus of the Railway. I am indebted for it to the Hon. Mr. Pearse.

From the entrance of the Fuca Strait	
To Esquimalt.....	65 miles.
To Burrard Inlet.....	152 "
From Esquimalt	
To Burrard Inlet.....	87 "
To Nanaimo.....	65 "
From Nanaimo	
To Comox.....	55 "
To Seymour Narrows (by land).....	100 "
To Esquimalt (by land).....	52 "
To the head of Barclay Sound.....	14 "

CONVEYANCE OF THE MAILS.

Mails.

Mails from Canada to British Columbia and *vice versa* are conveyed between San Francisco and Victoria by the Steamer *Prince Alfred*, an iron steam ship of 900 tons. The service is performed twice a month. Some mails are also conveyed by land to Portland or Olympia and thence reach Victoria by another steamer.

Postal service between San Francisco and Victoria.

This service is guaranteed by one of the conditions of union of Columbia with Canada, viz. :—

"The Dominion will provide an efficient mail service fortnightly by steam communication between Victoria and San Francisco, and twice a week between Victoria and Olympia, the vessel to be adapted for the conveyance of freight and passengers."

FUTURE POSTAL SERVICE.

Future service

When the American Railway shall have been completed as far as Olympia, it will be a question whether the interests of Columbia will not require a modification of this article, and whether it would not be better, in the interest of all parties, to do away with the line from San Francisco, and to substitute for it a daily line between Olympia and Victoria. In fact from the instant that the American Railway shall have been completed to Olympia, travellers will prefer a twenty hours voyage only, the rest of the journey being made by rail, to running the risk of an extended voyage on the Pacific Ocean, which in those latitudes is very often anything but what its name implies. The cost to the Canadian Government would be the same or nearly so, but this service would have the advantage of reducing the journey between Victoria and San Francisco to less than two days, and of sparing travellers a sea voyage of from three to five days.

MAILS FOR VANCOUVER ISLAND.

Vancouver Island mails.

The Vancouver Island postal service is performed from Victoria by the steamer *Sir James Douglas*, which conveys the mails along the eastern coast as far as Comox, 130 miles from Victoria, stopping at Cowichan, Maple Bay, Chemainus, Nanaimo and Comox. Cowichan is a flourishing place. It possesses good schools, a convent at which the Nuns (who are Canadians) teach trades to Indian and half-breed girls, and the only stone church in the Province. Nanaimo is also a flourishing town, with bright prospects for the future. There are hardly any settlements on the western coast, and there is in consequence no postal service. The service to Comox is efficient and regular, and is performed with every possible regard to economy.

MAILS FOR THE MAINLAND.

Mails for the main land.

The mails for the mainland are despatched from Victoria. Some, of but little importance, are conveyed by the *Sir James Douglas*, as far as Nanaimo, where the steamer *Otter*, belonging to the Hudson's Bay Company, receives the mails for the River Skeena. This service will have to be increased if the mines of the District of Ominica continue, during the coming season, to be as rich and as much resorted to as they were last year.

Cariboo mails.

The other mails, which are by far the most important, are conveyed from Victoria to New Westminster, thence to Yale, and from Yale to Barkerville.

From Victoria to New Westminster.

The service from Victoria to New Westminster, is performed by the steamer *Enterprise*, belonging to the Hudson's Bay Company. The vessel is very well adapted for the service. She has an excellent commander in

Captain Swanson, who personally, as well as in the name of the company, shewed me every possible attention.

From New Westminster to Yale, on the Fraser, the mails are conveyed, in summer, by the steamer *Lilloet*, commanded by Captain Parsons, who is deserving in every respect of the position which he holds. This service should be independent of that from Victoria to New Westminster, and arrangements should be made by which these steamers should wait for each other in case of delay. By this means alone, can the conveyance of the mails for the interior of the country, be rendered efficient. Otherwise, the mails arrive at Yale from the upper country, and if the steamers start without a previous understanding, the mails have to wait either at Yale or New Westminster. In fact, in any new post office contract entered into in that region, provision should be made for more speedy service, and for ensuring connections between the different modes of transport along the line.

From New
Westminster
to Yale.

More speedy
service.

From Yale to Barkerville, the service is performed by means of stages drawn by four or six horses. Until last year the contractor was Mr. Francis Jones Barnard, who owned excellent vehicles and horses, and fulfilled his contract to the satisfaction of all. A year ago, a contract was entered into with other contractors—Messrs. Gerow & Johnston—who have started a new line, and have taken the contract at a lower price. Numerous complaints are made as to the manner in which the service is now performed. It is important that, let the contractor be who he may, he should be held strictly to fulfil his contract; otherwise, all continental Columbia will be ill served, or deprived entirely of its mails.

From Yale to
Barkerville.

ADDITIONAL STEAMBOAT SERVICE.

Upon the Cariboo route, between Soda Creek and the mouth of the Quesnel, the Fraser is navigable, and the contractor, Mr. Gustavus Blin Wright, has put on a steamer, the *Victoria*, which makes the trip promptly and safely, and affords to travellers every comfort than can be desired.

From Soda
Creek to
Quesnel, the
Fraser is
navigable.

This is the same Mr. Wright, who has recently placed a steamboat on Lake Tatla, to provide miners with facilities for reaching the mines of the District of Ominica more speedily, more safely, and with less fatigue. I understood that, from the mouth of the Quesnel, he took his steamer up the Fraser River as far as Fort George, then by the River Nechago, Lake Stewart, the River Taché, Lake Tremble, or Traverse, and Middle River, as far as Lake Tatla, where is found the trail leading to the River Ominica. This will probably be the route followed in the conveyance of one of the mails intended for that part of the country.

Postal route
for the District
of Ominica.

NECESSITY OF A POST OFFICE INSPECTOR.

The presence of a good post office inspector is absolutely necessary in Columbia. There should be on the spot, some person with authority to act in an emergency, and one who, at the same time, would superintend the working of the system, and prevent fraud, abuses, and delay.

Post Office
Inspector
required.

ISLAND OF SAN JUAN.

The Island of San Juan, with the other islands in the archipelago of which it forms part, is situated between the Haro Strait and the Rosario Strait. If the arbitrator should decide that the treaty which determined the boundary line between the United States and the British possessions in North America, is to be interpreted as fixing the boundary in the Rosario Strait, then, as Your Excellency is aware, San Juan, and the other important islands,

The Island of
San Juan.

such as Lopez, Shaw, Blakely, Decatur, Orcas, &c., will form part of the territory of Canada. If, on the contrary, the Haro Strait forms the boundary between the two countries, then San Juan, and the other important islands which I have just mentioned, will belong to our neighbors.

Its extent.

I shall not here enter into any details on the subject of the other islands, but shall confine myself to a few remarks respecting San Juan. The island is 14 miles long, by about $4\frac{1}{2}$ in width. Its superficial area is 54 square miles; it is 18 miles from Victoria, the capital of Columbia, and is $6\frac{1}{2}$ miles from the shore of Vancouver Island. It appears to be very strong in a strategical point of view, and in the hands of an enemy, would command, on that side, the entrance to the Gulf of Georgia, and from that same fact, the entrance also of the Fraser River and of Burrard Inlet, in so far at least as vessels of large tonnage are concerned.

Military camps.

The Island of San Juan is jointly occupied by English and United States' troops. When I visited it in the month of September, there were about 200 or 250 soldiers there. The English camp is situated at the eastern end, and the American camp at the western end of the island. The English camp is in a picturesque spot, at the foot of a high mountain, called Mount Young. The camp appeared to be in very good order, and reflected credit on Captain De Lacombe, who commands it.

UNITED STATES CAPITATION TAX.

Capitation tax in the United States.

Before concluding this report, I consider it advisable to make mention of a complaint preferred by the Canadians in our Pacific Province. They grumble, justly, at the payment which the authorities of the State of California exact from them each time that they enter American territory, of a capitation tax of \$5. They say, with reason, that although that tax may be imposed on foreigners entering the United States, Canadians should be exempt, as they only pass through their country while *en route* from one part of Canada to another. They consider that, in this respect, the exemption from duties granted to merchandise, and to the Canadian mails, which pass through the United States to reach Canada, should be extended to *persons*.

IMPORTS AND DUTIES.

Various duties.

This mention of entry duties reminds me that I should have given a table of the imports into Columbia, from the date when Vancouver Island and continental Columbia became one and the same Province. I now append one. See Appendix NN. I attach to it, as Appendix OO, tables of the duties on imports, and of the taxes other than judicial imposts.

Duties of excise.

By means of those tables, it will be easy to see to what extent duties of excise have been levied in Columbia. The table forming Appendix PP, shews the revenue from customs, and also the total revenue for each of the ten years. I add as Appendix QQ, the excise law of the Province; as Appendix RR, the number of savings banks, the course of exchange in 1870, and the coin which was then current in Columbia.

Savings banks.

MISCELLANEOUS INFORMATION.

To complete the information which I collected in Columbia, I attach in the Appendix the following documents:—

**Game Law.
Proprietorship
of Vancouver
Island.**

Appendix SS.—Game law.

Appendix TT.—Relinquishment by the Hudson's Bay Company, to Her Majesty the Queen of Great Britain, of their rights on Vancouver Island.

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Appendix UU.—Treaty between Great Britain and the United States, on the subject of the boundary line between British Columbia and the United States, and on the subject of the navigation of the Columbia River. Boundary between Columbia and the United States.

Appendix VV.—Form of sale of public land, with the restrictions which it contains. Public lands.

Appendix WW.—List of the names of stipendiary magistrates, with details as to their duties, salaries, &c. Stipendiary magistrates.

Appendix XX.—List of Joint Stock Companies incorporated in virtue of the act or ordinance of 1869. Joint Stock Companies.

Appendix YY.—Report on the Colonial Assay Office, shewing the quantity of gold submitted for examination and the necessity of the office. Gold and Assay Office.

ACKNOWLEDGMENTS.

I conclude with an expression of my sincere thanks, especially to His Honor the Honorable J. W. Trutch, Lieutenant Governor of British Columbia, to His Excellency Admiral Farquhar, to the Honorable Mr. Begbie, Chief Justice, to the Honorable Mr. Justice Crease, and to the Honorable Messrs. McCreight, Pearce, and Good, for the facilities with which they provided me for obtaining the information which I was desirous of acquiring respecting British Columbia. To these gentlemen, and to a number of others, who also facilitated my researches, I am indebted for having been able to collect the information which I give here, and to acquire a knowledge, and become acquainted with the wants of the Province in so short a time. I venture to believe that my labor will not be unproductive, but that it will place Your Excellency, as well as my colleagues, and members of Parliament, in a position to judge of the value of that part of the Canadian Confederation which is as yet so little known, but whose future is so full of promise. Acknowledgments.

The whole respectfully submitted.

HECTOR L. LANGEVIN,
Minister of Public Works.

Ottawa, March, 1872.

APPENDICES

ALLUDED TO IN THE FOREGOING REPORT.

APPENDIX A.

MEMORANDUM BY THE HON. CHIEF JUSTICE BEGBIE.

Various descriptions of climate; the probable cause of the difference.

There are many different climates in British Columbia, apparently influenced in a great degree by four operative causes, each, probably, very important:

First, the soil, which in the lower country, and again north of Quesnel River, and generally in the Cascade and Selkirk ranges, is moist, well wooded, and mixed with, perhaps mainly constituted of, decomposed organic substances. In the middle of the Province, the middle Fraser, Thompson and Okanagan Districts, the soil is light, generally a sandy loam, of no great depth usually immediately superimposed on gravel beds (northern drift) occasionally of very great thickness, and always affording perfect drainage—comparatively destitute of trees or underbrush, covered with a thin but very nutritious grass (bunch grass.) As the great difference in the quantity and nature of the vegetable growth is an effect of the climate, so also it probably reacts powerfully upon it.

The second important consideration is, the very great difference of level; the open country round Okanagan varies from 1,500 feet above the sea level; round Nicola Lake, from 2,000 feet upwards; round Lake Lahache, from 2,500 feet upwards, while the plateau between Clinton and the Bridge Creek, is nearly level at 3,500 to 4,000 feet. I give these figures from memory and in round numbers.

The third and fourth considerations are, in a great degree, intermixed, being the geographical considerations arising from the greater or less distance from the sea, and the direction and vicinity of the mountain ranges, by which the equalizing currents of air from the ocean, or the intensifying currents from the arctic regions, or the superheated plains to the south of British Columbia, are checked or invited.

Climate near sea coast (low-lying lands) and Vancouver Island

The range of climate, therefore, is extremely great. Generally speaking the low portions near the sea and Vancouver Island have a moderate thermometrical range, rarely exceeding 80° Fahrenheit in the shade on the hottest day in summer, and rarely falling to 20° Fahrenheit in winter. The summers are generally dry, although with occasional showers; the winters generally bring much rain or snow; although I have known brilliant weather in winter for a month at a time. There is generally a good deal of wind, not however, of exceeding violence.

Climate in Central Columbia.

In the middle districts, both summers and winters are very dry, not so as to destroy vegetation by any means, for the country is covered with grass; but at most of the farms artificial irrigation is found desirable. The summer heat is intense, and in winter, mercury commonly freezes. In the winter of 1868, a tolerable thermometer at Quesnel Mouth was reported to me to have marked—57° F. = 89° F. below freezing point.

As to the effect of winter in freezing up harbors, I can only speak of three: Victoria (and Esquimalt), Fraser River and Burrard Inlet. The former and probably all the inlets to the S. and W. of the island, are quite open. Fraser River is generally open all winter; but in the course of thirteen winters, I have known it nipped early in November (in November, 1859 or 1860), and once continuously from January to March (about 7th January to about 21st March, 1862), during which time cattle were habitually driven across the ice to be butchered at New Westminster. Fraser River is generally closed for a few days only. On the other hand, in the majority of winters it is so obstructed. At Burrard Inlet (nine miles from New Westminster) there is in many winters a thin film of ice, but nothing, I should think, to impede navigation. Nanaimo, I believe, is more seriously frozen, but probably never so as to obstruct steamers much.

The winds up the country are not important, nor generally strong; although, of course, there are occasional outbursts. Upon the sea coast, of course, they are very important, especially as like the currents, they vary very suddenly both in strength and direction. But as to this, both winds and sea currents will probably be found most fully described in Admiral Richard's sailing directions.

There is nothing especial about the inland rivers except, 1st, their swiftness; 2nd (for the most part) their unnavigability; 3rd, the absence of all valley; they generally run in a mere groove, with but a small portion of alluvial soil.

In the upper country my experience is limited to the six travelling months—from May to November. During those months, the wind is almost always from the W. or N. W., and this accompanies dry weather. Owing to the conformation of the country, probably, and the vicinity of mountains in many parts, the surface wind may be in a very different direction from that in the upper strata. It is of course almost or quite impossible to observe this when the sky is perfectly clear, or uniformly overcast.

The existence of these different directions is well established at New Westminster, and at Victoria, for certain winds and states of the weather. At New Westminster, from November to May, much rain falls; nine-tenths of it with a surface wind from S. E. to N. E. Yet whenever during rain the motion of the clouds is visible, I have always noticed them to be driving from the S. or S. W.; which current (perhaps operated on by the mountains northward from Pitt Lake), appears to engender the counter current from the east, along which the rain seems to be borne, though it evidently comes in fact from the S. or S. W., i. e., from the Pacific Ocean. When at New Westminster the rain comes on a surface current from the west (as it does occasionally), this surface current is a true wind, generally of considerable force (6-8) and almost always clearing up fine in four or five hours. At Victoria, in like manner (where the prevailing winds are S. W. and S. E.—the latter the only stormy wind), a S. W. wind in the summer especially is well known to be generally a sort of counter current to a N. W. wind blowing outside the straits.

M. B. B.

September 5th, 1871.

APPENDIX B.

MEMORANDUM FROM THE PROVINCIAL SECRETARY'S
DEPARTMENT.

Climate.
Its effect on
harbors.

Q. Are harbors open the year round? When closed?

A. Harbors open throughout the year, except New Westminster, (fifteen miles up Fraser River,—fresh water); floating ice here makes harbor dangerous for shipping from January to March.

Q. Is there snow? Where? How much? Where does it fall? How long does it remain?

Snowfall.

A. Very little snow in Victoria. One fall in 1870, about an inch; little more at Nanaïmo and Comox, but does not remain long on the ground. At New Westminster, snow commences about January, and is all gone by March—not continuous. In the higher altitudes, more snow falls; but, in the open country, it seldom exceeds two feet in depth. In all the pastoral districts throughout the Province, cattle, as a rule, can obtain feed at any season of the year. Some unusually severe winters, farmers have had to depend on provender for their cattle, that had been stored up previously. A farmer who provides one month's forage, is considered a very careful, safe man.

Q. Is there any difference on Vancouver Island, and what?

Temperature
of Vancouver
Island.

A. The temperature on Vancouver Island in summer, is lower than on the mainland, owing to the prevailing southerly winds blowing from the direction of the snow-capped mountains, on the American side, and across the Sound. The waters of the sound are peculiarly cold, at this season, caused, it is supposed, by the currents running from the north, and by the melted snow finding its way into the Sound from the mountain tops.

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APPENDIX C.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS,

Taken at the Royal Engineer Camp, during the year 1862, by order of Col.
R. U. Moody, R.E., commanding the troops.

NEW WESTMINSTER, BRITISH COLUMBIA.

Latitude, $49^{\circ} 12' 47.5''$ N.; Longitude, $122^{\circ} 53' 19''$ W.

				Barometer.
The highest reading of the barometer, corrected for temperature, was.....				In. 30,517 Feb. 9.
The mean height of the barometer, corrected at 9.30 a.m., was.....				29,983
The mean height	do	do at 3.30 p.m.,	was	29,963
The lowest	do			29,071 Jan. 22.
				Degrees.
Maximum temperature, in sun's rays (black bulb) was....				104.0 Aug. 29.
do	do	of air, in shade, was		88.5 "
do	do	do at 9.30 a.m., was		73.9 July 23.
do	do	do at 3.30 p.m., "		86.0 Aug. 28.
Mean temperature of air, in shade				at 9.30 a.m. "
do	do	do at 3.30 p.m. "		46.8
Minimum				at 9.30 a.m. "
do	do	do at 3.30 p.m. "		2.0 { below zero,
				Jan. 15.
do	do	do		6.0 "
do	do	on the grass		15.0 { below zero,
				Jan. 16.
Greatest amount of humidity.....				" 1,000
Mean	do	do at 9.30 a.m.		" 842
do	do	do at 3.30 p.m.		" 772
Least	do	do		" 320 Jan. 3.

The cistern of the barometer is about 54 feet above the level of the sea. All the observations were made at 9.30 a.m. and 3.30 p.m. daily throughout the year.

There were slight frosts nearly every night in the month of April, and once in May (16th); they did not re-commence until the 9th of October. The severe frosts of January and February, have been unknown for many years.

Thunder and lightning occurred on the 24th May, 24th July, and 22nd, 29th, and 30th August.

Rain fall.

Table shewing the depth of rain, the number of days on which it fell, the mean humidity, (9.30 a.m., and 3.30 p.m.) mean temperature of the air in shade, and the lowest temperature on the grass in each month.

	Inches.	Days.	Humidity.	9.30 a.m.	3.30 p.m.	Thermometer. Min. on Grass.
January.....	3.480	9	.855	19.0	23.0	15.0
February.....	5.727	8	.815	30.3	34.2	2.0
March.....	5.830	17	.862	38.0	41.7	23.0
April.....	2.345	14	.767	45.5	51.3	26.0
May.....	3.415	13	.718	51.1	62.1	31.5
June.....	2.760	10	.712	62.7	67.1	40.0
July.....	2.709	12	.713	63.2	67.7	44.0
August.....	2.930	8	.787	63.5	69.8	43.0
September.....	1.625	9	.751	58.4	62.7	33.5
October.....	4.605	10	.869	49.3	52.9	23.0
November.....	4.050	8	.933	37.9	41.7	22.0
December.....	7.090	17	.948	36.7	39.7	18.5
	47.403	135				

Rain fell on 8 days when the wind was south, 4—S.W., 3—W., 5 N.—W., 8—N.E., 43—E., 26—S.E., and 38 when calm.

The greatest fall of rain in twenty four hours, measured 2.260 inches, and was on the 20th March. The average fall for every day of the year, was 0.130 inches, and, for each wet day, it was 0.352.

Ozone.

The amount of ozone this year was very small; its mean daily number would be represented by 3 on the scale, and it seldom exceeded 6. During the greater part of October, November, and December, there was little indication of its presence. For November, and the early part of December, there were heavy fogs, during which there was no ozone.

Comparison
of three years.

Comparison of Mean Results for Three Years.

Years.	Rain.		Mean Temperature.		Min. on Grass.	Humidity.		Mean height of Barometer.	
	Inches.	Days.	9.30 a.m.	3.30 p.m.		9.30 a.m.	3.30 p.m.	9.30 a.m.	3.30 p.m.
1860....	54.420	151	49.9	54.0	15.5	.847	.766	29.942	29.919
1861....	60.485	164	48.8	52.2	10.0	.764	.854	29.943	29.889
1862....	47.406	135	46.8	51.2	15.0 below zero.	.842	.772	29.083	29.963
Means	54.124	150	48.5	52.5	.....	.818	.797	29.956	29.924

Rain was more equally distributed throughout all the months this year, than in 1860 or 1861.

In the winter months, January to March, and October to December, 31,682 inches of rain fell, in 1862; 41,230, in 1861; and 13,834, in 1860.

The prevailing direction of the wind during rain in each year, was E. Wind and S.-E. The absolute limiting nights of frost, in the three years, was nearly the same.

Year.	Highest Level.	Lowest Level.	Difference of Level.	Remarks.
1860	12th June ..	4th March..	10.5 feet ...	From 22nd May to 12th Aug., ships did not swing to the flood tide.
1861	8th June ..	17th March.	9.5 feet ...	From 19th May to 10th Aug., ships did not swing to the flood tide.
1862	14th June .	19th April..	10.5 feet ...	From 1st May to 2nd Sept., ships did not swing to the flood tide.

Ice appeared on the 1st of January, 1862; and the river at New Westminster was unnavigable on the 4th; it was completely frozen over on the 9th, and the ice attained a thickness of thirteen inches in the channel, opposite the R. E. camp, on the 12th of February. Sleighs were running from Langley, to several miles below New Westminster; and persons walked from Hope to the latter place, a distance of eighty miles, on the ice, at the end of January. Lake Harrison and the other lakes were frozen. Navigation from New Westminster was open to the mouth of the river, on the 11th March; and from Yale, on the 12th April. Again, on the 5th December, there was ice in the river at New Westminster for one day. In January, 1861, there was ice at New Westminster, but the navigation to the mouth of the river was not impeded. In 1860 there was no ice.

The observations were taken by second Corporal P. J. Leech, and Lance Corporal J. Conroy, R.E.

(Signed)

R. M. PARSONS,
Captain, R.E.

METEOROLOGICAL REGISTER kept at Figgard Lighthouse from October, 1870, to August 31, 1871.

1870.	Maximum height of Barometer.	Minimum height of Barometer.	Maximum height of Thermometer.	Minimum height of Thermometer.	Average of Barometer at 8 a.m.	Average of Barometer at 6 p.m.	Average of Thermometer at 8 a.m.	Average of Thermometer at 6 p.m.	Total evaporation, in 100ths.	Number of rainy days.	Rain fallen, in 100ths.	Wind prevailing during the month.
October.....	30.46	29.76	65	56	30.15	30.14	61	62	.31	8	1.57	S.W.
November.....	30.38	29.58	64	56	30.00	30.00	63	65	.01	14	3.43	Variable
December.....	30.40	29.49	45	31	30.00	30.07	37	39	none.	11	4.15	E. to S.E.
1871.												
January.....	30.76	29.42	47	28	29.95	29.96	38	40	none.	18	5.99	N.
February.....	30.31	29.34	50	28	29.80	29.88	37	39	none.	10	2.08	S.E. to W.
March.....	30.57	29.05	52	38	29.90	29.88	42	42	none.	15	2.47	W.
April.....	30.52	29.70	62	42	30.02	29.64	51	46	.16	5	.93	S. to W.
May.....	30.13	29.71	65	44	29.92	29.91	53	55	.27	8	.57	E. & S.E. to W.
June.....	30.27	29.82	60	50	30.11	30.06	65	59	.35	3	.24	S. to W.
July.....	30.22	29.85	75	52	30.06	30.00	69	69	.38	1	.19	S.E. to W.
August.....	30.29	29.90	78	52	30.10	30.07	67	59	.35	1	.15	E. to E.S.E. & W.

AVERAGE of barometer and thermometer during the months of--

	Oct. and Nov.	Dec., Jan. and Feb.	March, April and May.	June, July and August.
ВАНКОМЕТЫ { at 8 a.m. at 8 p.m.	30 08 30 07	29 98 29 98	29 95 29 93	30 10 30 05
ТНЕРКОМЕТЫ { at 8 a.m. at 8 p.m.	60 00 61 00	38 00 39 00	48 00 47 00	68 00 59 00

Note.—It is impossible to give a perfectly correct account of the lowest temperature by the thermometer in use. If a self-adjusting maximum and minimum were supplied, a more reliable record could be kept.

ESQUIMAULT, September, 1871,
(Signed) Wm. Bevis, Light Keeper.

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APPENDIX E.

PREVAILING DIRECTION OF WIND.

Taken from Returns furnished by Lighthouse Keepers.

Month.	At mouth of Fraser River.	Race Rock.	Direction of wind.
September, 1870 .....	.....	W. to N.	
October, "	Variable.	"	
November, "	N.E. to S.E.	N.N.E. and W.	
December, "	"	N. and N.E.	
January, 1871	N.E., E. and S.E.	N.	
February, "	S.E. and E.N.E.	N. to S.W.	
March, "	"	W.	
April, "	S.E. and E.	"	
May, "	S.E. and E.N.E.	"	
June, "	S.E.	"	
July, "	Variable.	"	
August "	W. and S.E.	"	

Note.—It is impossible to give a perfectly correct account of the lowest temperature by the thermometer in use. If a self-adjusting maximum and minimum were supplied, a more reliable record could be kept.

ESQUIMAULT, September, 1871,
WM. BEVIS, Light Keeper.
(Signed)

APPENDIX F.

EXTRACT FROM COLONIZATION CIRCULAR 1870.

British Columbia and Vancouver Island.

Climate

The climate of the Western Colonies is stated to be excellent, and has been compared to the climate of the milder parts of England, or to that in the south of France. Indeed, it is said to be preferable to that of England, as it has more fine steady weather, is far less changeable, and on the whole milder.

The days in summer are warm, but not oppressive, and free from glare; the evenings are cool, with a gentle sea breeze.

Heavy rains generally fall in December or January.

The winter is a little cold, but not severe.

There are occasional frosts and falls of snow, but they rarely last long.

The climate of British Columbia may compare favorably with most colonies, more particularly with those on the American Continent, in similar latitudes.

It is remarkably healthy both in summer and winter, there being nothing like malaria or ague, either in the hottest summer weather, or the dampest localities.

The climate varies considerably according to the height from the level of the sea.

On the western and eastern side of the Cascade Range the climate is quite different.

Variations of climate.

The western is heavily timbered, and subject to heavy rains in spring and autumn, while on the eastern side the country consists of rolling grassy plains lightly timbered, the summer heat more intense, the rain light.

Tomatoes and melons ripen readily in the open air, and the winters are comparatively mild.

Again, at William's Creek, Cariboo District, situate in latitude 53° , or 5° north of New Westminster, the site of our most extensive gold mines, and at an altitude of 4,200 feet above the level of the sea, the weather of all seasons is most variable, subject to violent storms of rain and thunder, both in summer and winter.

Winter.

The winter begins in October and lasts till April, the thermometer varying from ten above to twenty below zero; snow generally falling in January and February to a depth of seven to ten feet.

The present meteorological observations may be taken to represent chiefly the features of the climate of that portion of the Colony occupying the southern corner of the Cascade Range.

Snow not exceeding a foot in depth except in extraordinary winters; and the summer season very much like that of England, with less rain in June, July and August.

Meteorological observations.

Extract of meteorological observations taken at the Government House, New Westminster, B. C., during the year 1865:—

Latitude, $49^{\circ} 12' 47''$ N.

Longitude, $122^{\circ} 53' 19''$ W.

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The highest reading of the barometer, corrected for					
temperature, was	...	...	...	...	30.589 4 Feb.
The mean height was,	do	..	at 9:30 a.m.	...	29.975
do do do	do	...	3:30 p.m.	...	29.963
The lowest do do	do	...	...	...	29.137 19 Feb.
Maximum temperature in sun's rays (black bulk)					
was	...	...	...	...	108.5 4 Aug.
Maximum temperature of air in shade	...	...	...	...	87.5 29 July.
do do do do	do	do	9:30 a.m.	...	78.7 8 Aug.
do do do do	do	do	3:30 p.m.	...	84.5
Mean do do do do	do	do	9:30 a.m.	...	47.6
do do do do	do	do	3:30 p.m.	...	51.9
Minimum do do do do	do	do	9:30 a.m.	...	15.0 8 Feb.
do do do do	do	do	3:30 p.m.	...	16.7 18 Dec.
Minimum temperature on the grass					
Greatest amount of humidity	...	...	...	...	1.000
Mean do do do	...	...	9:30 a.m.	...	.822
do do do	...	...	3:30 p.m.	...	.740
Least do do do	...	...	...	...	.270 12 Dec.

The cistern of the barometer is about thirty-four feet above the level of the sea.

All the observations were made at 9:30 a.m. and 3:30 p.m. daily throughout the year.

TABLE shewing the depth of rain, the number of days on which it fell, the Rain fall, mean humidity (9:30 a.m. and 3:30 p.m.), mean temperature of air in shade, and the lowest temperature on the grass in each month:—

	Rain in Inches.	Days.	Humidity.	Thermometer.		
				9:30 a.m.	3:30 p.m.	Min. on Grass.
January.....	4.07	17	.869	33.0	36.4	24.9
February.....	3.34	17	.869	34.4	39.5	24.1
March.....	2.43	20	.817	35.3	38.9	25.4
April.....	1.09	10	.714	46.4	51.8	31.7
May.....	2.22	13	.787	53.0	59.5	41.6
June.....	1.83	11	.753	58.9	63.7	43.0
July.....	1.55	6	.734	65.7	70.9	46.9
August.....	1.70	12	.795	63.8	69.8	47.2
September.....	4.73	23	.875	55.1	58.5	44.8
October.....	3.26	10	.892	51.5	55.7	40.5
November.....	8.68	24	.950	44.4	46.7	36.3
December.....	5.04	19	.810	29.4	31.6	21.6
Total.....	40.84	182				

The day on which most rain fell, and which measured 1.64 inches, was on the 28th November.

The prevailing direction of wind was E. and N. E.

Ozone, registered for nine months only, gave a greater quantity than former years, as shewn by the test papers; its mean daily number would be represented by five on the scale, and often indicated as high as nine.

An earthquake was felt a few minutes after nine p.m. on the 25th August.

Heavy thunder and vivid lightning occurred on June 20th, July 15th, August 6th and September 12th.

Comparison of COMPARISON of Mean Results for three Years; also Mean Result for the results, Year 1865.

Years.	Rain.		Mean temperature.		Min. on grass.	Humidity.		Mean height of barometer.	
	Inches.	Days.	9:30 a.m.	3:30 p.m.		9:30 a.m.	3:30 p.m.	9:30 a.m.	3:30 p.m.
1860.	54.420	151	49.9	54.0	15.5	.847	.766	29.942	29.919
1861.	60.485	164	48.8	52.2	10.0 15.0 below zero.	.764	.854	29.943	29.889
1862.	47.466	135	46.8	51.2		.842	.772	29.983	29.963
Means.	54.124	150	48.5	52.5	.....	.818	.797	29.956	29.924
Mean for 1865.	40.84	182	47.6	51.9	1.8	.822	.740	29.975	29.963

The observations for the above three years were taken by the Royal Engineers, and were discontinued on the disbandment of the detachment in 1863, and were not resumed till January, 1865.

Rain was more equally distributed throughout all the months in 1862, than in 1860 or 1861.

In the winter months, January to March, and October to December, 31.682 inches of rain fell in 1862, 41.230 in 1861, and 40.586 in 1860.

In the remaining months, 15.785 inches fell in 1862, 19.255 in 1861, and 13.834 in 1860.

The prevailing direction of the wind during rain in each year, was E. and S. E. The absolute limiting nights of frost in the three years were nearly the same.

The observations were taken by second Corporal P. J. Leech, and Lance Corporal J. Conroy, R. E.

R. M. PARSONS,
Captain, R. E.

MEMO.:—The meteorological observatory at the camp, New Westminster, was discontinued in 1866 for lack of funds.

J. W. T.

APPENDIX G.

EXTRACT FROM PAMPHLET BY HENRY DE GROOT,

Published in 1859.

The climate of the Pacific coast, as is well known, is no where so severe Climate. in the same parallel of latitude, as that of the Atlantic, the difference varying from fifteen to twenty degrees, that is, we have to go some 1,200 miles further south on the Atlantic side of the continent, to find a mean winter temperature corresponding to that on the Pacific side. And though the climate of British Columbia forms no exception to this rule, it is somewhat varied, certain belts of country being warm and dry, while others are moist and of a more equable temperature. Thus we have a district extending from the mouth of the Fraser River inland, about 150 miles, characterized by a humid climate, and in which the thermometer of Fahrenheit rarely falls below ten or rises above ninety degrees in the course of the year.

Throughout this region rain is abundant during the spring. During Rain fall, summer and autumn, falling not only in frequent showers, but continuing sometimes for several days together.

Snow also falls here in the winter from one to two feet, often more in Snow fall, the northern part of the district, though hardly so much near the sea.

It is not apt to lie more than a week or two at a time, it then melting and the ground remaining bare for a like interval, to be again succeeded by another fall, and so on throughout the winter, which generally breaks up in the early part of March. The damp and cloudy weather here prevalent during the summer prevents the heat reaching so high a point as further in the interior.

When the atmosphere is clear heavy dews fall at night, and fogs at all Dews and seasons of the year are common. Fogs.

Beyond this wet section of country, the northern limits of which cross the Lilloet route in the vicinity of Anderson's Lake, and the Fraser between the Upper Canon and the Forks, lies a district of about equal breadth characterized by greater heat and aridity, and which though situate further north, and generally more elevated, is scarcely any colder in the winter, and has even less snow than the country further south along the lower Fraser.

North of this, again, is another belt having a more humid climate, showers being frequent in the summer, and the winters somewhat more rigorous.

Taken altogether then, the climate of British Columbia, though subject to much fluctuation, and varying with locality, cannot be considered one of great severity; neither the heat of summer nor the cold of winter reaching such extremes as in Canada, or the Northern States of the Union.

As evidence on this point, it may be stated that the snow along the valleys of the Upper Fraser and its tributaries, rarely ever exceeds eighteen inches in depth, and for the most part does not even reach six inches, while a great portion of the time there is none at all on the ground during winter.

The larger lakes never freeze over, nor do the Fraser or other large streams ever close entirely up.

Stock is able to subsist on the bunch grass throughout the winter, and Food of Cattle

even work animals keep in tolerable condition on the rushes that grow in the bottoms without other feed.

On the divides and more elevated places, the depth of snow as well as the degree of cold, depends of course on the height of the locality; the traveller encountering snow in some places he may have to pass, twice as deep as that found in the valleys.

Climate of the
Upper Fraser.

There was no snow or frost of any consequence on the Upper Fraser river last year, until about the first of December, when the weather suddenly became cold, the snow falling to a depth of five or six inches, and even a foot, on the lower part of the river.

The smaller streams and the ditches at the same time became covered with ice, and the ground froze to the depth of several inches, interfering seriously with, and for the most part putting a stop to, mining operations.

This weather after continuing for two or three weeks, moderated, and for the next five weeks, but little snow fell, while the thermometer in two or three instances only, went below twenty degrees, fluctuating between that point and forty-five degrees.

After this mild period came another spell of cold and varying weather, which held for three or four weeks, when the snow and ice mostly disappeared, and the Indians leaving their winter houses, declared that season at an end.

The miners also got to work in their claims, and have not since been interrupted.

This was early in the month of March, since which time the weather has been constantly growing warmer, the thermometer having fallen but a few times below the freezing point.

During March the weather was showery, with some slight frosts and falls of snow in the early part of the month. Much the same kind of climate as above described, prevails throughout the regions lying between and bordering on the Kamloops and Great Okanagan Lakes, as well as the extensive districts to the north and east.

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APPENDIX H.

EXTRACT FROM PAMPHLET BY DR. CHARLES FORBES,
M.R.C.S. ENGLAND, SURGEON ROYAL NAVY.

Published by the Colonial Government, Vancouver Island, 1862.

The following meteorological observations having reference to the tables appended, will show the character of the seasons which have prevailed on the coast generally, for the last fifteen years, and will further elucidate the subject by pointing out the causes of the difference observable between the littoral and inland insular climates. Causes of difference of climate.

On the western side of the North American Continent, the summer heats are modified by the boreal currents and melting snows of the watersheds, while the severity of winter is not increased by a sweeping Arctic current such as washes the eastern shores.

Arctic currents do sweep down, however, and in summer are felt far south, below the latitude of San Francisco, but, more diffused, they do not lower the temperature in a corresponding degree, and the coast, open to the warm rays of the western sun, and the moist westerly winds, presents to equal latitudes on the eastern side, very unequal isothermal conditions.

A more extended series of observations is needed, before any general deductions can be made whereby to recognize the existence of any cycle, or predicate the possible recurrence of any particular season.

Enough, however, is known to give the general character already assigned to the climate of Vancouver, viz.:—a dry, warm summer, a bright and beautiful autumn, an open, wet winter, and spring. Severe and exceptional seasons occurring at irregular intervals.

The winter of 1846 was remarkably severe, the cold setting in on the 5th of January, and continuing with severity until the middle of March, during which time the Columbia River was frozen, the thermometer ranging five degrees below zero. Winters.

1847.—Very mild throughout.

1848.—The cold weather began on the 17th December, the Columbia River froze over, but the ice broke up before New Year's Day, the river remaining open.

1849.—The cold weather set in on the 27th November, when the moon was at full; clear days and sharp frosty nights continued till the 10th December, when the Columbia was covered with floating ice, and snow began to fall heavily.

This continued till the 18th (seven inches of snow on the ground), when it became mild, with S.E. winds and rain, and open weather continued to the end of the month.

These remarks apply to the coast generally; the following have reference specially to Vancouver:—

The year 1850, as shown by a thermometric register, kept at Fort Victoria, (see tabular statement, page 71), was fine throughout. It shows that there were in that year 201 fine days, 96 overcast and foggy, 97 rainy, and 17 days on which snow fell. The year 1850, on V. I. Temperature and weather.

This, however, is not critically correct, as respects doing justice to the

fine weather, for under the two last heads are included all days on which rain or snow fell, although the amount might be trifling.

Maximum temperature of air in shade

At 8 a.m., 65° Fahr., on 20th June, 1850.

At 2 p.m., 84° " 26th " "

At 8 p.m., 73° " 28th July " "

Minimum temperature of air in Shade

At 3 a.m., 14½° Fahr., on 4th December, 1850.

At 2 p.m., 24° " " "

At 8 p.m., 16° " " "

Mean daily temperatures given in Abstract Appendix No. 1 (see page 72.)

Snow began to fall on the 5th January. On the 24th there were 17 inches on the ground, which, however, was all gone by the 28th. The maximum temperature for January was 47° Fahr. The minimum temperature 21° Fahr., on the 23rd.

February was open and mild. On the 12th, gooseberry buds were opening; some hail showers and frost towards the end of the month. Maximum temperature 58°. Minimum temperature 26° Fahr.

March.—Variable weather, slight snow storms in early part, but so partial, that on the 2nd, early plants were coming into leaf in sheltered spots, native hemp was three inches high, elder bush putting out leaves. On the 7th, the catkins of the palm willow in full bloom. On the 29th there was still snow on the ground, and buttercups in flower. Maximum temperature 60°. Minimum 35° Fahr.

April.—High winds, altering with calms. Strawberries coming into bloom on 18th. Maximum temperature 69°. Minimum 35° Fahr.

May.—Fifteen fine clear days, twelve overcast, four rainy. On the 1st, plains covered with verdure, the turn-cup lily, heartsease, crowfoot, jonquil, and many other flowers in full bloom, camass flowering, spring wheat and peas rising, early potatoes above ground. On the 4th, campaniola and lupin coming into flower, wild cherry and serviceberry coming into blossom, and wild vetch flowering in warm places. On the 6th, apple tree in blossom, strawberries forming. 7th, potatoes planted in March and April coming up. 12th, early beans in bloom. 18th, wild rose coming into bloom. 25th, strawberries ripening. 31st, wild gooseberries ripening. Maximum temperature 79°. Minimum 39° Fahr.

June.—Twenty-three fine clear days, seven overcast and foggy. On the 14th, queen of the meadow and golden rod in bloom. 17th, potatoes flowering. Maximum temperature 84°. Minimum 47° Fahr.

July.—Twenty-two fine days, nine overcast. Maximum temperature 82°. Minimum 52° Fahr. 11th, barberry and raspberries ripe. On the 17th, first double rose on Vancouver Island came into flower.

August.—Twenty-six fine days, five overcast. Maximum temperature 79°. Minimum 53° Fahr. On the 16th, distant thunder, high wind, N.E.

September.—Twenty-four fine days, six overcast. Maximum temperature 74°. Minimum 45° Fahr. On the 7th, heavy dews.

October.—Twenty fine days, ten overcast. Maximum temperature 70°. Minimum 38° Fahr.

November.—Thirteen fine days, fourteen overcast, three rainy. On the 19th, a heavy gale of wind, felt simultaneously along the whole coast. Maximum temperature 55°. Minimum 32° Fahr.

December.—Ten fine days, sixteen overcast, four rainy, one snowy. Fraser River frozen on the 4th, ice quickly broke up. Maximum temperature 48°. Minimum 14½° Fahr.

Other years.

The above gives the general character of the year 1850, and may be taken as a good type of a season, intermediate between the severity of 1846,

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ABSTRACT
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Date.	3 a.m.	3 p.m.
1850.		
Jan...	43	
Feb...	44	
March...	40	
April...	54	
May...	65	
June...	65	
July...	65	8
Aug...	64	7
Sept...	62	7
Oct....	55	7
Nov...	52	5
Dec....	43	4
Total.		

and the mild open winters, which prevailed until 1859-60; when the cold set in in November, and continued for some months with heavy falls of snow.

From March, 1860, the weather was mild throughout, and continued so through the winter, and into the spring of 1861.

The summer of this latter year was very hot and dry, the early autumn was very fine and clear, with occasional cold, south-easterly winds, heavy rains in November, and early part of December.

The tabulated statement at page 72, for the year 1860-61, shows the ranges of the barometer, thermometer, (wet and dry bulbs), number of days fine, rainy, &c., and furnishes a good comparative estimate of climatorial variation.

Care must be taken, however, to bear in mind, that in consequence of its insular position, washed by an ocean having a remarkably low temperature, the littoral climate of Vancouver, differs materially from that of the inland plains and valleys, therefore the register No. 2, for 1860-61, kept on board one of H.M. ships, is peculiarly interesting, as showing what range the thermometer takes in the shade, when removed from all possible influences of radiated or reflected heat.

To this cause is to be assigned the differences in the mean daily temperatures, observable on comparison of the different months in the two years, both ashore and afloat, and not simply to change or variation of climate.

ABSTRACT of Thermometrical Observations, from a Register kept at Fort Victoria, Vancouver Island, for 1850, showing Maximum and Minimum Temperatures, &c., &c.

Date.	Thermometer.					WEATHER.					
	High'st.		Lowest.			Number of Days.		No. of Days.		No. of Days.	
	8 a.m.	2 p.m.	8 a.m.	2 p.m.	8 p.m.	Clear & Fine.	Wind.	Overcast Cloudy.	Wind.	Rain.	Wind.
1850.											
Jan...	43	47	40	22	31	21	8 N. & N. by E.	...	...	1 S.W. & W	7 N. & N.E.
Feb...	44	58	47	26	36	29	10 N. & N. E....	6	N.E.	11 S.W., S.E.	...
March...	49	60	51	27	33	28	6 N. & W....	8	S.W., S.E.	8 S.E.	9 N. & S.E.
April...	54	69	49	39	39	35	24 N.W. to S.W.	2	S.E.	4 S.E.	...
May...	65	79	57	45	46	39	15 N.W. to N.E.	12	S. to S.W.	...	...
June...	65	84	64	50	59	47	22 Light and Variable	7	N.E., S.E.	...	...
July...	65	82	73	52	60	53	22 N.W., S.W.	9	S., S.W.	...	...
Aug...	64	79	60	53	63	53	26 N.W., N.E.	5	Calm.	...	...
Sept...	62	74	63	45	59	49	24 S.S.W., N.W.	6	Calm.	...	...
Oct...	55	70	52	33	48	38	20 N., N.E., S.W.	10	Calm, Lt. S. & S.E. w'ds	...	...
Nov...	52	53	51	32	38	32	13 Calms, Light East winds	14	S.W., S.W.	3 S.E.	...
Dec...	43	46	44	14	24	16	10 Calms, Light North winds	16	Calm.	4 S.W.	1 S.E.
Total.	...	...	...	...	...	...	201	96	...	50	17

Mean temperature. No. 1.—MEAN DAILY TEMPERATURE in the shade, for the year 1850, Register kept on shore at Fort Victoria.

	8 A.M.,	2 P.M.,	8 P.M.,
	DEG.	DEG.	DEG.
January	32	38	32½
February	36	44½	38
March	37	46	37
April	46	57	44
May	54	69	51
June	57½	69½	53½
July	61	74	60
August	59½	72	57½
September	51½	64½	55
October	46½	57½	46½
November	39½	46	40
December	35	40	36

No. 2.—MEAN MAXIMUM AND MINIMUM DAILY TEMPERATURE in shade, for the year 1860-61. Register kept on board ship.

1860.	DEG.	DEG.	DEG.
April	54	49	51
May	59	53½	58
June	62	57	57½
July	64	58	55½
August	65½	59½	54½
September	60	55½	58½
October	55½	54½	54½
November	50	51½	48½
December	46	44	40
1861.			
January	43	40½	41½
February	43½	40	43
March	40	50	48

Barometer.
Meteorological observations.

In the quarter ending 30th June, 1860, the highest barometric range was in April, 30·33; the lowest 29·25. In the same month, there were seventeen fine days, seven rainy, and six overcast, with variable and light winds from east and south. Sea water 50° Fahr., the hygrometric observations show an average difference of 3° 7-10 Fahr., between the wet and dry bulbs. Average temperature 51½° Fahr.

In May the barometer had an average range of 30·04. There were eighteen fine days, nine rainy, and four overcast, with variable winds, chiefly from south-west. Sea water 51° Fahr. The thermometer average 55½° with 4° 1-10 Fahr., difference between wet and dry bulbs.

June.—Twenty fine clear days, six rainy, and four overcast. Barometric range, average 30·02. Average of thermometer 61°, and difference of bulbs 4° 7-10. Sea water 55° Fahr.

July.—Sixteen fine days, six foggy, seven rainy. Average range of barometer 29·93, thermometer 60° 1-10 Fahr., hygrometer 3½° Fahr. Sea water 58½° Fahr. Prevailing winds, south and south-east, with calms.

August.—Twenty-four fine days, seven rainy. Average range of barometer 30·01, thermometer 63½° Fahr., hygrometer 1°. Sea water 58½° Fahr. Winds S.W., S. and S.E.

September.—Eighteen fine days, seven rainy, five overcast. Average range of barometer, 30·12, thermometer 57½° Fahr., hygrometer 1°. Sea water 55° Fahr. Prevailing winds S. and S.E.

October.—Thirteen fine days, eleven rainy, seven overcast. Average range of barometer 30.01°, thermometer 54° Fahr., hygrometer 103-155. Sea water 50° Fahr. Winds N.E., variable, calms.

November.—Ten fine days, twelve rainy, eight overcast. Average range of barometer 30.18, thermometer 49½° Fahr., hygrometer 1°1-30 Fahr. Sea water 47½° Fahr. Prevailing winds N. and S.W., to E.S.E.

December.—Fifteen fine days, nine rainy, seven overcast. Average range of barometer 29.96, thermometer, 42° Fahr., hygrometer, 1°5-6 Fahr. Sea water 45½° Fahr. Winds N. and N.E., variable, frequent calms.

January.—Ten fine days, eleven rainy, ten overcast. Average range of barometer 30.01, thermometer 38° Fahr., hygrometer 3° Fahr. Sea water 43½° Fahr. Winds variable, frequent calms.

February.—Nine fine clear days, seven rainy, eleven overcast, one snowy. Average range of barometer, 29.94, thermometer 44½° Fahr., hygrometer 3° Fahr. Sea water 43½° Fahr. Winds light, variable, frequent calms.

March.—Fifteen fine days, four rainy, nineteen overcast, three snowy. Average range of barometer 25.02, thermometer 46° Fahr., hygrometer 2½° Fahr. Sea water 44½° Fahr. Winds, light, variable.

The importance of a knowledge of the remarkable differences observable in these registers, kept one on shore, the other afloat, is obvious both in a sanitary and agricultural point of view.

The humidity of the atmosphere can be only estimated by the above average difference between the wet and dry bulbs.

The absence of thunderstorms is a remarkable fact. Distant thunder is heard at times, but very rarely does the electrical discharge take place over Vancouver.

APPENDIX I.

EXTRACT FROM WORK ON VANCOUVER ISLAND AND
BRITISH COLUMBIA,

By J. Despard Pemberton, Esq., Published in 1860.

*Proposed British Emigrant and Postal route from Canada to the Pacific
through British Columbia.*

Climate.

As some very erroneous impressions, regarding the climate of the different localities through which the proposed line must pass, prevail, I may be excused for making the following remarks.

It is commonly said that in point of temperature, in North America, the same effect is experienced by travelling through 1° of longitude westward, as by travelling through 1° of latitude southward.

This is manifestly an exaggeration; still it is a fact that, as we move westward, the climate becomes milder, and the average annual temperature is increased.

Increase of
temperature
towards the
west.

This increase of temperature, in the region we are speaking of, on the same latitude, amounts probably from side to side of the continent, to 15° Fahr., an effect, perhaps, produced by the summer winds of the Pacific, which blow almost constantly from west or north-west, wafting warmth and moisture through the passes of the rocky chain. But whatever the cause, the fact is certain; the south part of Vancouver Island, for instance, having a climate much milder than in England, is a hundred miles north of Quebec.

An isothermal line drawn across the continent would, of course, be far from straight, but the general obliquity of such a line may be judged of in this way:—If such a line were drawn from New York it would pass through Lake Winnipeg to Fort Simpson; in other words, if New York were with respect to latitude, similarly placed on the West Coast, Fort Simpson, a thousand miles north of it, would enjoy a temperature equally favorable with it.

Comparison
with Russia.

Mr. Blodget, who has published an extensive work on the Climatology of the United States, remarks that nine-tenths of European Russia,—the main seat of population and resources—is farther north than St. Paul; that, in fact, Pembina is the climate equivalent of Moscow, and for that of St. Petersburg (which is in 60° north) we may reasonably go to latitude 55° on the American continent. Like European Russia, also, the Saskatchewan district has a climate of extremes, the thermometer having a wide range; but it is well understood that the growth of the cereals, and of the most useful vegetables, depends chiefly on the intensity and duration of the summer heats, and is comparatively little influenced by the severity of winter cold, or lowness of the mean temperature during the year.

Isothermal
line.

Therefore, it is important to observe that the Northern shore of Lake Huron has the mean summer heat of Bordeaux, in Southern France, namely 70° Fahr., while Cumberland House, in latitude 54°, longitude 102°, on the Saskatchewan, exceeds, in this respect, Brussels and Paris.

The United States Army Meteorological Register has ascertained that the line of 70° mean summer heat, crosses the Hudson River at West Point, thence descends to the latitude of Pittsburg, but westward is traced through

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Sandusky, Chicago, Fort Snelling, and Fort Union, into British America. "It is warmer," he says, "at Fort Benton on the Missouri, in long. $110\frac{1}{2}^{\circ}$ west, and lat. $47\frac{1}{2}^{\circ}$ north for every season, than at St. Paul, Minnesota.

"The mean winter temperature at Fort Benton is 25° , and the same as that of Chicago, Toronto, Albany, and Portland, Maine.

"At St. Paul it is but 15° , or 10° less. It is not so cold as this on the main (south) branch of the Saskatchewan."

Allowing the 15° Fahr. before mentioned; considering 1° latitude south equal to 1° Fahr.; also as usual, 300 feet of altitude equal to 1° Fahr.; the average climate of the Vermilion Pass would probably resemble that of Moose or York factories, in the southern part of Hudson's Bay, of which Dr. Rae says the summer there extends from early in June to early in November,—five months. Mr. A. C. Anderson's opinion on this subject, from his long residence in the country, is entitled to attention: of the Upper Fraser he says:—

"The regular freshets begin at the latter end of April, and last during Freshets.

"May and June.

"About the 15th of June may be regarded as the culminating point; and by the middle of July the waters are generally greatly subsided.

"There is rarely a freshet of much consequence at any other season; but this sometimes happens, and I have known a sudden freshet from heavy rains in October; raise the river beyond the summer limit.

"Snow begins to fall in the mountains early in October.

Snow.

"In July there is still snow for a short distance on the summit of the Fort Hope trail, but not to impede the passage of horses. From the middle of October, however, to the middle of June, this track is not to be depended upon for transport with pack animals.

"The summer climate about the Forks is dry, and the heat is great.

"During winter, the thermometer indicates occasionally from 20° to 30° Climatic of cold below zero of Fahr.; but such severe cold seldom lasts on the upper variation. parts of Fraser's River for more than three days; the thermometer will then continue to fluctuate between zero and the freezing point, until possibly, another interval of cold arrives.

"But the winters are extremely capricious throughout these regions, and no two resemble each other very closely.

"In general the snow does not fall deep enough along the banks of main streams to preclude winter travelling with pack animals. The quality of the pasture is such (a kind of bunch grass in most places) that animals feed well at all seasons.

"There are many spots between the Similkameen Valley and Okanagan that are specially favorable for winter ranches.

"In some the snow never lies, however deep it may be around."

Mr. John Miles, on May 1st, found the Saskatchewan country completely free from snow, and the river very full of water.

Of a climate known to be capricious, whether we compare seasons or localities, it is of course impossible to speak with certainty; but, we have evidence enough to justify the inference that Vermilion Pass would be open at least five or six months, (perhaps seven) out of the twelve, and the remaining portions of the route much longer.

One peculiarity of the climate of the country, it requires in England an effort to realise. Surrounded by snowy peaks, the air is often not only warm but sultry. Even at Victoria, where snow seldom exceeds a few inches, or Langley, we have evidence of this every day. The snow itself is not of the damp, compact nature we are accustomed to; it is light, dry, and drifting; on this account, when it does come to thaw, it disappears with astonishing rapidity.

The annexed data extracted from the reports of the Secretary of War, Report of U.S. Secretary of War, U. S., 1853-1854, record some particularly interesting facts on this point.

" Mr. Pinkham crossed the mountains from Walla-Walla to Seattle, by the Yakima pass, the summit of which he crossed on the 21st of January. For about six miles on the summit, the snow was found to vary from four feet to six feet in depth, occasionally seven feet.

" The area covered by snow exceeding twelve inches in depth, was somewhat less than seventy miles; of this forty five miles were two feet, and upwards; twenty miles were four feet, and upwards; and five miles were six feet and upwards.

" All the snow was light and dry; it was the accumulated snows of the winter to January 21st; deposited in successive layers of two inches to two feet, which have generally lain undisturbed since their fall; and they present little obstruction to removal in comparison with the compact drifted snows of the Atlantic States. The winter and spring temperatures of the Yakima pass, 3000 to 4000 feet elevation, are given as follows:—November, 36°; December, 28°; January, 28°; February, 30°; March, 31°; April, 38°.

" The mean temperature at Puget Sound, from observations extending over four years, is exactly 10° higher than these; at the Sound the winter rain is 20.6 inches, and since more rain usually falls in the neighborhood of mountains than on plains, and snow occupies from ten to twelve times the bulk of an equal quantity of rain, it is probable that the accumulated snows of winter, in the Vermilion Pass, would exceed twenty or twenty-one feet, but that the Pass would frequently be open in December, and passable in May."

APPENDIX J.

EXTRACT FROM WORK ON VANCOUVER ISLAND AND BRITISH COLUMBIA.

By Alexander Rattray, M.D., Edinburgh, Published 1862.

METEOROLOGICAL ABSTRACT for Esquimalt, Vancouver Island, for the year 1860-61.

1860-61.	Barometer.					Thermometer.					Difference between Wet and Dry Bulb Thermometer.				
	Maximum.	Minimum.	Medium.	Monthly range.	Greatest daily range.	Maximum.	Minimum.	Medium.	Monthly range.	Greatest daily range.	Maximum.	Minimum.	Medium.	Monthly range.	Greatest daily range.
April.....	30.53	29.84	30.23	0.69	1.04	61.5	43.5	51.74	18.0	9	61	11	31.6	5	31
May.....	30.29	29.63	30.03	0.76	0.28	62.5	46.5	55.50	16.0	8.5	70.5	0	33.5	7	32
June.....	30.47	29.76	30.06	0.71	0.22	68.0	52.5	59.44	15.5	10	84.5	1	34.5	7	32
July.....	30.20	29.39	30.10	0.80	0.15	68.5	54.5	61.01	15.0	10	84.5	0	34.5	8	32
August.....	30.37	29.64	30.04	0.73	0.20	72.0	55.0	62.16	17.0	11.5	65.5	0	34.5	6	32
September.....	30.42	29.48	30.08	0.94	0.45	65.5	50.0	57.97	15.5	11.5	65.5	0	34.5	2	32
October.....	30.25	29.63	30.01	0.62	0.27	60.5	45.5	54.11	15.0	8	31.5	0	34.5	3	31
November.....	29.83	29.26	30.10	1.57	0.55	61.0	40.5	49.16	20.5	11	5	0	14	5	33
December.....	30.54	29.43	29.96	1.11	0.27	59.0	28.5	42.62	30.5	29	7	0	15	7	6
January.....	30.42	29.43	30.11	0.99	0.33	51.5	23.5	39.19	28.0	22	6	0	15	6	5
February.....	30.69	29.19	30.03	1.50	0.42	50.5	21.0	48.17	21.0	22.5	5.5	0	15	5	7
March.....	30.60	29.43	30.09	1.17	0.40	59.0	34.0	45.31	25.0	23	9.5	0	15	5	4
Entire year.....	30.69	29.19	30.07	1.50	1.04	72.0	23.5	51.77	48.5	29	94	0	21.5	94	73

METEOROLOGICAL ABSTRACT for Esquimalt, Vancouver Island, for the year 1860-61.—Continued.

1860-61.	Direction of Winds, (Number of Readings).																Force of Wind.			State of the Weather.							No. of days on which snow or hail fell.						
	N.W.	N.N.W.	N.	N.N.E.	N.E.	E.N.E.	E.	E. by S.	S.E.	S.S.E.	S.	S.W.	W.S.W.	W. by S.	W.	W. by N.	Variable.	Calm.	Average.	Range.	Calm days.	Calm mornings.	Calm evenings.	No. of fine days.	No. of wet days.	No. of showery days.		No. of foggy and misty days.	No. of days with strong breeze, or equally.	No. of days with thermometer below freezing.	No. of days on which snow or hail fell.		
April	9	8	1	7	5	21	2	32	46	3	31	16	0.8	2	10	12	19	0	9	0	6	0	0	0	0	0	0	0	0	0	1		
May	2	12	3	1	7	14	2	56	39	1	30	13	0.7	0	11	10	20	0	10	0	6	0	0	0	0	0	0	0	0	0	0	0	
June						15	4	59	30	1		14	0.7	0	17	11	24	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	
July						19	9	48	5	17		39	14	0.5	3	15	9	22	0	8	3	5	0	0	0	0	0	0	0	0	0	0	0
August	3	2	1	1	1	7	20	62	10	10		40	13	0.6	2	17	10	27	0	4	3	1	0	0	0	0	0	0	0	0	0	0	0
September	5	15	6	8	6	8	22	40	17	6		76	10	0.8	3	24	16	14	1	8	3	1	0	0	0	0	0	0	0	0	0	0	0
October	15	2	2	2	2	4	10	27	10	2		87	13	0.7	5	27	23	9	3	11	3	0	0	0	0	0	0	0	0	0	0	0	0
November	2	22	9	4	10	6	22	10	22	5		67	2	0.9	4	20	13	10	4	9	3	0	0	0	0	0	0	0	0	0	0	0	0
December	21	15	34	20	3	6	11	1	4	4		65	14	0.9	5	18	13	4	6	12	3	0	0	0	0	0	0	0	0	0	0	0	0
January	4	20	42	3	3	6	11	1	1	7		41	14	0.8	3	9	11	9	3	12	3	0	0	0	0	0	0	0	0	0	0	0	0
February			28	6	4	15						5	28	7	10	2	1	4	1	16	0.9	1	17	11	7	1	12	1	4	1	1	2	
March			19	1		22						77	3	0.9	2	19	18	13	1	3	0.9	2	19	18	13	1	6	0	4	0	5	5	
Entire year	3837	189	456	5	73	1094	57	345	28	271	12	16	251	602	170	0	9	30	204	187	17	101	35	11	12	1188	11	12	12	12	12	12	12

* Once every twelve days.

+ 51.7 per cent. of the entire year, the remainder being dull, squally, rainy, &c.

§ Once every 3.1 days.

SYNOPSIS OF WINDS.
 Southerly winds 795=61.72 per cent.
 Northerly " 324=25.15 "
 Easterly " 88=6.83 "
 Westerly " 30=2.33 "
 Variable " 51=3.96 "

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Totals

In the table on the two preceeding pages will be found a statement of the prevailing weather, at Esquimalt, for one year, viz., from the 1st April, 1860, to the 1st April, 1861, inclusive, which may be taken as a fair specimen from which to form an average conclusion.

This goes far to prove that we enjoy, as a rule, fine weather. Of the 365 days of the year, no fewer than 187, or 51 per cent., were fine, the remainder being dull, showery, rainy, &c.

During the winter months, fine weather accompanying frost is by no means uncommon, or of short duration.

Rain fell on 118 days, or once every $3\frac{1}{11}$ days; most heavily and frequently during the winter months, from October to February. Snow fell on twelve days only, and then neither heavily nor for any length of time. The thermometer fell only eleven times below freezing, during the year, a good indication of the mildness of the winter.

Heavy and prolonged fogs prevail during October and November. In the summer, mists are usually rare, partial, and transitory.

The highest summer temperature shown in the table was 72° (9th August); June, July, and August, being the warmest months of the year. The lowest, $23\frac{1}{2}^{\circ}$, the coldest months being December, January, and February. The annual thermometric range was $48\frac{1}{2}^{\circ}$, while the greatest daily range (23°), occurred in March, and the smallest during October.

The extremes of temperature are, therefore, by no means great, a good index of the equable character of the climate, and of the absence of sudden and violent changes.

The columns indicating the difference between the wet and dry bulb thermometers (a good criterion of the amount of moisture in the atmosphere), shew that during the entire year, even during the winter months and the rainy and foggy weather of October and November, the air is not unfrequently very dry. The greatest difference between the wet and dry bulbs was $8\frac{1}{2}^{\circ}$ (June)—it has been observed as high as 13° , (5th May, 1861,) and the least maximum difference, $2\frac{1}{2}^{\circ}$ (September).

The dampest months of the year were from September to January inclusive, the dampest of all being October, when fogs are often prevalent.

The barometric variations are neither great nor frequent, the range for the entire year being only 1.50 inch.

The wind columns shew the great frequency of calm mornings and evenings, while entire calm days occurred about once in every ten.

The average force of wind for the entire year was only $1\frac{1}{10}$, scarcely equal to a light breeze, the highest being nine. High winds and squally weather are unusual in summer, they chiefly visit us in the spring and winter months.

The following table will shew the direction of those winds which occurred during the year with a force equal to a fresh breeze:—

Esquimalt, Vancouver Island, 1860-61. Table of Winds with a force at and above 5, (fresh breeze).

Direction of Wind.	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	Total and Per centage.
Southerly (chiefly S.W.)	11	5	6	4	6	2	2	5	...	5	4	6	56=67.47 percent
Northerly	...	1	...	...	...	...	2	1	3	...	...	1	11=13.25 "
Easterly	1	...	...	...	...	1	...	1	...	3	2	1	6=7.23 "
Westerly	...	...	...	...	...	...	...	...	...	...	...	1	6=7.23 "
Variable	...	...	...	1	...	...	...	...	...	...	1	2	4=4.82 "
Totals	13	6	6	5	6	3	4	8	3	11	7	11	83

Thus it appears that high winds are commonest in April, and blow chiefly from the south and south-west, forming sixty-seven per cent. of the strong breezes which occur during the entire year. Strong northerly winds are rare even in winter. The per-centage from the west is, however, unusually large. When westerly winds do occur, they are often violent.

Southerly winds prevail, as a rule, during the year, and occur in the proportion of sixty-seven per cent.

Next to these in the order of frequency are the northern, eastern, and western. The southerly winds, which blow nearly all the year round, and those in winter from the north, may be said to prevail in the southern extremity of Vancouver Island.

The less prevalent easterly and westerly winds usually occur during the winter months, especially December and January; in the summer, very rarely.

Winds with
rain.

Esquimalt, Vancouver Island, 1860-61. Winds which accompanied Rain.

Direction of Wind.	April	May	June	July	August	September	October	November	December	January	February	March	Summary.
S.W.	4	2	4	2	...	2	3	...	5	3	4	29	Southerly, 59.
S.	1	4	...	2	2	2	1	...	...	1	...	14	
S.S.W.	...	...	1	...	...	...	...	...	2	...	1	7	
S.E.	1	2	...	2	1	4	...	...	...	...	...	7	
S.S.E.	...	...	...	...	...	...	...	...	...	...	...	4	Northerly, 28.
N.E.	1	...	...	...	...	1	3	5	3	1	...	14	
N.	...	...	...	...	...	...	...	...	3	1	2	5	
N.W.	...	...	...	...	...	1	1	2	...	2	2	11	
N.N.W.	...	...	...	...	...	...	...	1	...	...	...	1	Easterly, 12.
E.	...	1	...	...	...	...	...	...	...	...	...	2	
E.S.E.	...	...	...	...	...	...	...	...	...	...	...	2	Westerly, 2.
W.S.W.	...	...	...	...	...	...	...	...	...	...	...	1	
Vancouver Island	...	...	...	...	...	...	...	...	...	...	...	1	1.
Columbia	2	1	1	2	...	1	3	1	2	2	1	...	16.
Total	9	10	6	8	4	9	14	13	10	13	14	8	118.
							64						

The above table shows that the winds which most frequently accompany rain are southerly or sea breezes, principally S.W. These almost invariably accompany the showers of spring and summer, and often occur with the heavier and more prolonged winter rains—although northerly and easterly winds, both land breezes, are those which usually follow the latter, and together form about one-third of the winds which succeed rain.

The following are the usual characteristics of the different seasons:—

Characteristics of seasons.
Spring.

The spring is short, and lasts from the beginning or middle of March to the end of April or beginning of May. In early March the weather undergoes a marked change, and a drier and milder atmosphere forms a decided contrast to that of the cold and wet winter months that precede it. Trees bud and come into leaf, and, towards its close, various wild plants, e.g., the *Colinsia Tullium*, &c., are in flower. The prevailing weather is characterized by fine mild days, still alternated, however, with occasional rain and squalls. Towards the latter end of April, fine weather has fairly set in, with mild dry south and south-west winds, but farming operations may usually be commenced with the utmost safety in the beginning or middle of March, as the keen biting "March winds" of the English climate, so detrimental to the

budding fruit and vegetation generally, are seldom, and never severely, felt here.

Our beautiful and more protracted summer begins with May, and ends with September. During these glorious months we are cheered by a bright sun, a clear and often cloudless sky, lasting frequently for days together, with gentle sea and land breezes. Rain falls seldom, and never heavily; fogs and mists are rare; the season is delightful. Sometimes, indeed, the power of the sun becomes excessive, and the soil very arid from the want of rain; but these drawbacks are but trifling, and do not interfere, to any appreciable extent, either with individual arrangements, or agricultural or horticultural operations. The heavy English "harvest rains" of August and September are unknown in Vancouver Island, and the crops are usually sown, reared, cut, and housed with fine weather.

The autumn, which lasts during October and November, presents a marked change. Cold and moist northerly winds succeed the dry southerly breezes of summer; fogs begin in October, and occasionally during the latter end of September, with a moist atmosphere and frequent rains. These, however, alternate with periods of fine mild weather, sometimes lasting for ten days or a fortnight, and forming what, in the aggregate, is termed the "Indian summer." So mild, however, is the temperature, comparatively speaking, even at the latter end of November, that wild strawberries may occasionally be seen in bloom.

During the winter, which lasts from the beginning of December to the end of February, cold moist northerly and southerly winds prevail, with frequent rains and occasional fogs, the latter, however, less common than in the autumn. This state of things is often pleasantly varied by periods of fine, clear, frosty weather, lasting from two to four, or even eight or ten days. The thermometer is seldom much below zero, snow is uncommon, and neither falls heavily nor lies long, nor are the frosts intense or long continued, ice being seldom more than one inch thick. So mild is the usual winter weather of this colony, that most farmers leave their stock unhoused and at large during the entire season. More severe and prolonged winters occasionally occur, however, as during the past year of 1861-62, and during 1852-53, but these are exceptional, and do not happen more frequently here than in England and other countries with similar climates.

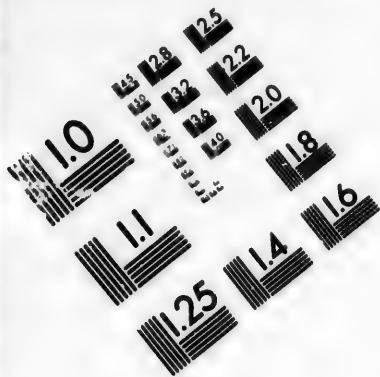
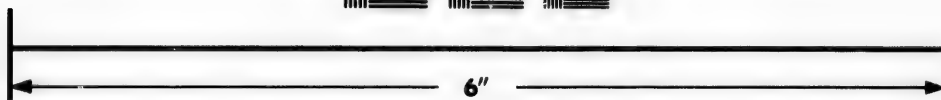
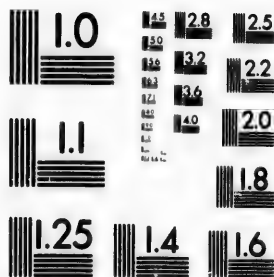


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APPENDIX K.

EXTRACT FROM J. D. PEMBERTON'S WORK ON VANCOUVER ISLAND AND BRITISH COLUMBIA.

TIMBER.

Timber.

The largest trees yet discovered on the Pacific coast resemble cedar, but are of the cypress kind. They are found at Mariposa and Calaveras, and measure upwards of 30 feet in diameter, and nearly 400 feet in height. No pines have been met with as large as these. Near Humboldt, I noticed a forest of firs (which resembled the Douglas, but had smaller foliage and cones), in which a diameter of from 14 to 15 feet, and a corresponding height, was not uncommon. A few trees of the Douglas kind, of similar size, are found on the banks of the Columbia. In the British Colonies, trees exceeding 9 or 10 feet in diameter, and 270 or 300 feet in height, are rarely met with. In the very large trees, alluded to as being found south of 49°, the annual rings are large and soft, and the timber comparatively weak.

Douglas pine.

In this respect, the timber north of 49° being of more moderate dimensions, has decidedly an advantage. There the Douglas fir, which, with the silver fir (*grandis*), is the most abundant on the coast, will, I should think, prove, on being properly tested, to be the strongest fir or pine in existence. Broken in a gale, the stem is splintered to a height of 20 feet at least, and when being hewn down, it is astonishing to observe how small a portion of the trunk will withstand the leverage of the whole tree. On account of the quantity of resin it contains, the timber is exceedingly durable. The bark resembles cork, is often 8 or 9 inches thick, and makes a capital fire. H. M. S. *Thetis* was sparred with it,—I am not aware with what result. If the wood is not too heavy, I should think it will make the best spars in the service.

Menzies and other pine.

On the banks of the Nitinat Inlet and elsewhere, forests of the Menzies pine occur, very suitable in point of size for first-class spars. This wood appears to work beautifully. Hemlock spruce (*Canadensis*), from which laths are made, is very common. The banks of the Columbia, near Colville, appear to grow *ponderosa* almost exclusively. A small pine (*inops*), a portion of the bark of which Indians eat, is constantly met with near water, whether in the lowest swamps, or basins on mountain tops. The Weymouth pine (*Strobus*), is common everywhere. The *Nootkatensis* I have not met with. These are but a few of the firs or pines which are generally met with. A series of experiments to test their physical properties has been commenced, but is as yet too incomplete for publication.

Although spar-timber is common everywhere, the trees grow larger and straighter in the still valleys bordering on the Gulf of Georgia, than where more exposed on the coast.

There are two occasions on which touring in a pine forest is far from entertaining, viz.:—In a storm; when tree after tree, with a noise like thunder, comes crashing to the ground; and, secondly, when the forest is on fire. It is difficult to conceive anything more dismal than the appearance of charred and branchless forests where fires have swept. It is not un-

common in autumn to see the country in this way illuminated by a blaze extending for miles in every direction.

Of oak there are two kinds; the timber is weak, and the trees usually Oak. show symptoms of decay.

If curled maple is in England valuable for furniture, as I am told it is, Maple and it may be of service to some one to know that it grows in abundance on *arbutus*. the banks of the rivers in these Colonies. The trunks of the *Arbutus* grow very large, and the wood in color and texture so much resembles box, that for many purposes it might supply the uses of the latter. It is, however, specifically lighter.

The country also produces cedar, or rather cypress (*Cupressus thyoides*), Other timber. juniper, yew, birch, poplar, sorbis, &c., but I never noticed ash, beech or elm.

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APPENDIX L

EXTRACT FROM DR. A. RATTRAY'S WORK ON VANCOUVER ISLAND AND BRITISH COLUMBIA, 1862.

TIMBER PRODUCE.

Timber: its
value and uses.

The timber produce of Vancouver Island and British Columbia, will soon be of great value in the colonies themselves, especially in the former, likely to possess a large mercantile navy.

In addition to this, the increasing scarcity in many countries of timber adapted for mast and spar-making, and for ship-building purposes generally, makes the produce of these colonies of peculiar value, especially to extensive ship-building countries like Great Britain. Both colonies are, for the most part, forest-clad, and much fine timber exists.

The pine, or cone-bearing family, predominates throughout, and forms a marked feature in the scenery.

Varieties.

The following list comprises the most useful and important trees:—

1. *Conifere* (Cone-bearing family).

<i>Pinus Douglasii</i>	Douglas Pine.
" <i>Balsamea</i>	Canada Balsam Pine.
" <i>Strobus</i>	White, or Weymouth Pine.
" <i>Canadensis</i>	Hemlock Pine.
" <i>Mitis</i>	
" <i>Nigra</i>	Black Spruce.
" <i>Nobilis</i>	Noble Fir.
" <i>Grandis</i>	
" <i>Monticola</i>	
<i>Thuja Occidentalis</i>	White Cedar.
<i>Cupressus Thyoides</i>	Common Cypress Cedar.
<i>Taxus Baccata</i>	Western Yew.

2. *Amentacee* (Catkin-bearing family).

<i>Platanus Acerifolia</i>	Plane.
<i>Populus Tremula</i>	Aspen.
" <i>Balsamea</i>	Cotton Wood.
<i>Quercus Nigra</i>	Black Oak.
" <i>Alba</i>	White Oak.

3. *Ericacee*.

<i>Arbutus Laurifolia</i>	Arbutus.
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Pine.

The Douglas pine preponderates at the southern end of Vancouver Island, and along its east and west coasts, with occasional patches of oak, and a few maple, cypress, arbutus, yew, and other varieties.

Maple.

Maple is said to abound towards its north end. Many of the trees on the hilly ground are of stunted growth; but, in the valleys and low ground, especially along the west coast, heavy timber is plentiful, especially the lofty Douglas pine, admirably adapted for mast and spar-making. Messrs. Stamp & Co., at Barclay Sound, are actively pushing the timber trade, and

are exporting cut timber to Australia, &c. ; and are also under contract to supply the English Government with spars.

Much of the oak of this colony is of good size and quality, and well adapted for knees-timber and general ship-building purposes.

Their wood has been of incalculable utility to these young colonies, where it still forms the principal fuel, and the most generally employed material for house-building, land-fencing, &c., &c.

Saw mills are much required at the southern end of Vancouver Island, to supply the colony with sawn timber ; much of that now in use is imported from the neighbouring American territory. The principal difficulty in this colony, is the scarcity of labor.

The timber produce of British Columbia is both varied and valuable ; the country along the Lower Fraser especially is densely wooded.

The forests of this colony may be said to be inexhaustible, and will long yield timber in abundance when the timber produce of Vancouver Island has been consumed. British Columbia has superior facilities for the development of an export trade in timber. By its large and rapid rivers, especially the Fraser and its tributaries, and the Harrison and other lakes, which usually communicate with them, the timber of the north-east, east, and southern parts of the interior, and of the whole of the extensive tract of wooded country which the Fraser River drains, may be floated down to New Westminster or Victoria for shipment : while that of the hilly region, which lies between the western coast and the Cascade and Harrison Lake ranges, may be similarly transported by the smaller streams, and those numerous arms of the sea, which are found in that direction, *e.g.* :—Bentinck Arm, Howe Sound, Bute Inlet, &c., where saw mills may easily be established for the manufacture of spars and timber, similar to that now in operation at Barclay Sound.

The timber found in British Columbia, though more varied than that of Vancouver Island, is even less used, except for fuel and house-building.

Several markets may be found for the manufactured timber of Vancouver Island and British Columbia ; in England, spars, oak, and other woods are much required for ship-building ; in Australia and South America, timber is scarce ; and in China, especially in the south, whose teeming population are compelled to sacrifice everything to agriculture, and where wood is therefore scarce, valuable, and in great demand for house, junk, and boat building, the soft woods of Vancouver Island will find a ready sale ; and also charcoal, the principal fuel used by the Chinese for culinary and general domestic purposes.

The collection of turpentine, an exudation from various species of pine, Turpentine might be profitable in these colonies. The Douglas pine yields it in considerable quantities, though probably not so abundantly as the Carolina pine, the ordinary source of the turpentine of English commerce.

The manufacture of tar, invaluable to Vancouver Island as a commercial Tar and pitch, and fishing colony with a numerous shipping, has not yet been attempted in either colony.

In the southern states of America, it is made from the heart-wood of dead pines, which becomes charged with resinous juice long after the tree has died, from which it is extracted by an easy process, usually carried on in the forest. From tar thus obtained, pitch may be procured by distillation.

The manufacture of potash, or pearlash, (the black salts of commerce,) now extensively carried out in the forests of Canada, might be attempted in those of British Columbia and Vancouver Island with their surplus wood.

In Canada, the hard woods yield it in greatest abundance, especially elm, ash, birch, beech, and maple ; and the salt is made by dissolving and evaporating the ashes left on burning the trees. This salt will be useful in the colony for soap, candle, and other manufactures.

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APPENDIX M.

COPY OF LETTER FROM ROBERT DUNSMUIR, Esq.

Nanaimo, B. C., September 20, 1871.

THE HONORABLE H. L. LANGEVIN, C. B.
Minister of Public Works.Coal Mining
on Vancouver
Island.

SIR,—Being informed by Captain Spalding that you wished to have a few remarks from me relative to the seam of coal which we are about to work on Vancouver Island, and not knowing the exact points on which you would feel most interested, as very little has been done so far towards its development, I have considered it not amiss to state in the first place how it was discovered.

Discovery of
mine.

When I was in the bush about three miles from the sea, in the month of October 1869, not exactly for the purpose of prospecting for coal, but being thoroughly acquainted from past experience with all the coal formation in this country, I came across a ridge of rock, which I knew to be the strata overlying the lowest seam that had as yet been discovered here. A short time afterwards, I sent two men to prospect, and in three days discovered a seam of coal $3\frac{1}{2}$ feet in thickness, 30 feet below the tops of the ridge, dipping S.E., one foot in six.

Trial of the
coal.

After procuring from government a right to further prospect, I sunk a slope $97\frac{3}{4}$ yards in the seam, and mined therefrom about 500 tons, twenty-five tons of which were taken on board of H. M. S. Boxer, for trial. The same quantities were taken from the Vancouver Coal Company's Douglas' Pit and Newcastle Mine. A copy of the report of said trial, I herewith enclose.

While working the slope, I had a party of men prospecting in the same ridge, about half a mile nearer the sea, and found the same seam about 27 feet from the surface. I afterwards had a bore put down about $\frac{3}{4}$ of a mile from the beach, and struck the seam 8 feet in thickness, at a depth of 132 feet. This place was as far to the dip of the field, as the grant from Government allowed me to go. Hence you will observe that the distance between where I first discovered the coal, and the bore is $2\frac{3}{4}$ miles, with an average width of $\frac{1}{2}$ mile, which I believe contains coal, although there may be a few "faults" met with, as is the case in all coal fields, but considering the depth of the bore in such a distance from the "out crop" they cannot be of much consequence.

It was my intention to have worked, for the present, the second place where the coal was found, merely because it would have shortened the length of the tram-road; but as I was again strolling through the bush about ten weeks ago, about 200 yards from the place I had determined to work, I chanced to come upon the root of a fallen tree, which I thought had a peculiar appearance. On examination I found coal sticking on the upturned root, and digging a little under it, I saw that coal had been there, but was now removed by the action of fire.

I then sent for two of the workmen, who brought picks and shovels, and in half-an-hour, we discovered a seam of coal *left* 3 feet thick, the top of course having been consumed. I set the men to work about 80 yards further to the dip, and 9 feet below the surface found the seam of 9 feet in thickness.

For a distance of 54 yards by 2 yards wide, I have had the surface removed, and from the cut intend to "open cast" some acres to the rise, where the surface to be removed will only average about $4\frac{1}{2}$ feet.

I expect to find a rock roof to the dip of this, in which case the coal will have to be mined, this I may remark is rather a remarkable discovery, no machinery being required for a considerable time. The quality of the coal appears to myself and others to be superior to the other.

It is my opinion that the average yield of this field, per acre, will be about 7,000 tons; but should the thickness of 9 feet continue, it will be much more. H. M. ships have been supplied with most of the coal procured from the first opening, and under considerable difficulties, as the coal had to be teamed to the beach and put alongside in lighters.

At present I am constructing a tram-road to, and building a wharf at, Departure Bay (one of the finest harbors on the coast, where vessels of any draught can enter), and intend to be able to supply coal within two months. There are about forty men employed at present, twenty-five whites, seven Chinese, and the remainder Indian.

Should you wish information regarding coal or coal mining in this Province at any future time, I shall always feel it an honor to do what I can in supplying it to the best of my ability,

I have the honor to be, Sir,

Your obedient servant,

(Signed) ROBERT DUNSMUIR.

APPENDIX N.

EXTRACT FROM LETTER ON GOLD MINING AT
GERMANSEN CREEK.

GERMANSEN CREEK, August 16th, 1871.

Nature and
yield of gold
diggings.

Mansen River

Black Duck
Gulch.Proposed pack
road.Necessity for
a mail.

* * * I did not think the country sufficiently prospected to justify me in writing definitely about the mines before this. There are two and a half miles of this stream that will pay from \$10 to \$75 per day to the hand; the diggings are shallow, and will be speedily worked out. Of course there may be some few claims that will prove blanks, but they cannot be many, as prospects have been obtained in a majority. South-east from this place there has been a stream called Mansen River discovered. So far the stream, with few exceptions, has proved a blank, but on both sides of the creek there are many benches and joints of bare rock and gravel, that pay well; in some instances they pay as high as \$75 per day to the man. I think if there was water to be had to wash the flats, the yield of gold from that section would be very heavy indeed. There are several small creeks and gulches putting into Mansen Creek that prospect well, two of which pay remarkably. Lost Creek, for five days' work, with five men, cleaned up 192 oz. of gold dust. The new company below them consider their ground equally as good. The companies above them have not got their claims opened, but think the pay will be found as good there as below. The next is Black Duck Gulch. The best pay is from \$40 to \$50 per day to the man, four companies working. There are some of the oldest and best miners in the mountains prospecting. One of them, who came in for a fresh supply of provisions, thinks they are going to develop some rich mines fifty miles north-west from here. I think there is a lively future for this section of British Columbia. I consider there are mines enough found at present to justify a population of 2,000 in risking the country. The only drawback to the old route will be the road tolls. If they can be removed I have no doubt the travel and merchandise will come that way. The trail cut by the packers can be made a splendid road for pack animals at a little expense; at least, all who have travelled over the route say so. From this town to Stewart's Lake the distance will not exceed 115 miles; from thence to Quesnel 175 miles. Good feed can be had all the way. There is some talk of gold quartz being found. I cannot trace the report to reliable men. Next week almost every company, for a distance of two miles, will be washing. I cannot give you an idea as to how many men there are here. There are quite a number leaving, and of course they will give the country a bad name, but I feel certain time will prove this to be a great mining region. We need a weekly mail to the place. Cannot something be done to induce the new Government to send us a mail twice a month in winter, and as often as it is sent to Cariboo in the summer? There are about twenty houses erected here, many of which compare favorably with the mercantile houses in Barkerville. About three miles of this creek are abandoned by the miners, but many contend the pay will be found in the flats where it is not in the stream. I believe the largest pieces found in Mansen River district weigh \$80 and \$100. Nothing so heavy has been found in this creek this season.

APPENDIX O.

AN ORDINANCE TO AMEND THE LAWS RELATING TO GOLD MINING.

[2nd April, 1867.]

WHEREAS it is expedient to amend and assimilate the laws relating to Gold Mining in this Colony :

Be it enacted by the Governor of British Columbia, with the advice and consent of the Legislative Council thereof, as follows :—

1. From and after the passing of this Ordinance "The Gold Mining Repeals for-
" Ordinance, 1865," and the proclamations, rules and regulations and ordi-
mer Acts.
nances repealed thereby, are hereby repealed ; provided, however, that such
repeal shall not in any manner affect any rights acquired, or any liabilities or
penalties incurred thereunder, or any remedies or punishments prescribed
thereby, but such remedies and punishments may still for the purposes of
such enforcement, but not further or otherwise, be available and capable of
imposition.

2. In the construction of this Ordinance the following expressions shall Interpretation
have the following interpretation respectively, unless there be something clause.
inconsistent or repugnant thereto in the context :—

The words "Her Majesty" or "the Crown" shall mean Her Majesty, Her Majesty,
Her heirs and successors ; the word "Governor" shall mean and include any the Crown.
person administering the Government of this Colony ; "Gold Commissioner" Gold Com-
shall include Chief Gold Commissioner, Assistant Gold Commissioners and missioner.
others lawfully acting as Gold Commissioners, either under special authority
or the authority of this Ordinance ;

The word "Mine" shall mean any locality in which any vein, stratum or Mine.
natural bed of auriferous earth or rock shall be mined ; and the verb "to
mine" shall include any mode or method whatsoever of working the same for
the purpose of obtaining gold therefrom ;

"The word "Claim" shall mean the personal right of property or Claim.
interest in any mine : and in the term "Mining Property" shall be included Mining
every claim, ditch, or water privilege used for mining purposes, and all other Property.
matters and things thereto belonging, or use l in the working thereof ;

"Bar Diggings" shall mean every mine over which a river extends Bar diggings.
when in its flooded state ;

"Dry Diggings" shall mean any mine over which a river never extends ; Dry diggings.
The mines on benches shall be known as "Bench Diggings," and shall Benchdiggings
for the purpose of ascertaining the size of claims therein be excepted out of
the class of "Dry Diggings" ;

"Streams and Ravines" shall include water courses, whether usually Streams and
containing water or not, and all rivers, creeks and gulches ; Ravines.

"Hill Claims" shall include all claims located on the surface of any hill ; Hill claims.
"Ditch" shall include a flume or race, or other artificial means for Ditch.
conducting water by its own weight, to be used for mining purposes ;

"Ditch Head" shall mean the point in a natural watercourse or lake Ditch head.
where water is first taken into a ditch ;

"Free Miner" shall mean a person named in, and lawfully possessed of Free Miner.
a valid existing Free Miner's Certificate, and no other ;

And words in the singular number shall include the plural, and the masculine gender shall include the feminine gender ;
Record, &c. The words "Record," "Register," and "Registration," as hereinafter used, shall be synonymous.

Ordinance divided into twelve parts. 3. This Ordinance shall be divided into twelve parts :—

The first part relating to the appointment of Gold Commissioners and their jurisdiction ;

The second part to Free Miners and their privileges ;

The third part to the registration of claims and Free Miners' general rights ;

The fourth part to the nature and size of claims ;

The fifth part to bed-rock flumes ;

The sixth part to the drainage of mines ;

The seventh part to mining partnerships and limited liability ;

The eighth part to administration ;

The ninth part to leases ;

The tenth part to ditches ;

The eleventh part to Mining Boards and their constitution ;

The twelfth part to the penal and saving clauses.

PART I.

Appointment of Gold Commissioners and their Jurisdiction.

Gold Commissioner to be appointed by the Governor.

4. The Governor may from time to time appoint such persons as he shall think proper to be Chief Gold Commissioner and Gold Commissioners either for the whole Colony or for any particular Districts therein, and from time to time in like manner fix and vary the limits of, and subdivide such Districts, and make and revoke all such appointments.

Mining Court in each District

5. Within every such District or Districts there shall be a Court to be called the "Mining Court," in which the Gold Commissioner of the District shall preside as judge thereof.

Jurisdiction of Gold Commissioner.

6. Such "Mining Court" shall have original jurisdiction as a Court of Law and Equity to hear and determine all mining disputes arising within its District, and shall be a Court of Record with a specific seal ; and in determining suits or actions brought therein, the Gold Commissioner may render such judgment, or make such order or decree as he shall deem just, and for the purposes thereof, and for enforcing the same he shall have and exercise, save as hereinafter excepted, the same powers and authority, legal and equitable, as are now exercised in the Supreme Court of Civil Justice of British Columbia, by any Judge thereof ; Provided, however, that the Gold Commissioner shall, if desired by both parties to a cause in cases of unliquidated damages, or if desired by either party to a cause in case of unliquidated damages, summon a jury of from three to five Free Miners to assess the amount of such damages.

Same powers as Judge of the Supreme Court in enforcing decision.

7. No prescribed forms shall be necessary, provided that the substance of the matter complained of be properly expressed in writing and embodied in a summons to be issued from the Court, and served on the opposite party, or as may be directed, and such summons may, by leave of the Gold Commissioner, be amended, if requisite, by either party, upon such terms as he may impose, and the sum of ten dollars shall be charged for every summons so issued.

Jurisdiction beyond district in certain cases.

8. Where disputes arise concerning mining property, portions whereof are situated in adjoining or different districts, the Gold Commissioners of either of such districts before whom the dispute is first brought shall determine it.

9. The Gold Commissioner may, in cases of disputed boundaries or Mining surveyor's measurements, employ a surveyor to mark and define the same, and cause the reasonable expense thereof to be paid by either or both of the parties interested therein.

10. He shall also have the power to lay over any or all claims within his district, for such period and under such circumstances as he may think proper.

11. He shall have power to order any mining works to be so carried on as to ensure the safety of the public, or protect the interests of claim holders or bed rock drains; and any abandoned works may by his order be either filled up or guarded to his satisfaction, at the cost of the parties who may have constructed the same, or in their absence then upon such terms as he shall deem expedient.

12. It shall be lawful for him, upon being so requested, to mark out for business purposes or gardens, on or near any mining ground, a plot of ground of such size as he shall deem advisable; subject, however, to all the existing rights of Free Miners then lawfully holding such mining ground, and their assignees. And any building erected, or improvements made thereon for any such purposes, shall in every such case be erected and made at the risk of the persons erecting and making the same; and they shall not be entitled to any compensation for damage done thereto by such Free Miners so entitled in working their claims *bona fide*.

13. It shall be lawful for him, upon being so requested, to mark out for business purposes or gardens, on or near any mining ground not previously pre-empted, a plot of land of such size as he shall deem advisable, to be held subject to all the rights of Free Miners to enter upon and use such lands for mining purposes, upon reasonable notice to quit being given to the occupier, such notice to be subject to the approval of the Gold Commissioner; and, further, upon the payment of due compensation for any crops thereon, and for the buildings and improvements erected on such plots; such compensation to be assessed by the Gold Commissioner previous to entry, with or without a jury of not less than three.

A monthly rent of five dollars shall in every such case be payable by the grantees of such plot, or their assignees, to the Gold Commissioner.

14. Any judge of the Supreme Court of Civil Justice of British Columbia may, with the advice and consent of the Gold Commissioner of any particular district, from time to time make, repeal, and alter any rules and regulations for the conduct of the business before such Gold Commissioner, and for the costs incident thereto.

15. Where any mining cause, wherein the sum of damages sought to be recovered shall be less than two hundred and fifty dollars, is brought in the first instance before the Supreme Court of Civil Justice of British Columbia, it shall be lawful for the court, after issue joined, to direct the cause to be tried before any particular Gold Commissioner, upon such terms as the court shall think fit.

16. All jurors and witnesses summoned under and by virtue of the powers contained in this Ordinance, shall be entitled for their attendance to receive such compensation as the court may direct.

17. When in civil cases, the subject matter in any mining dispute is in value more than two hundred and fifty dollars, an appeal shall, save as hereinafter excepted, lie from the decision, ruling, judgment, order, or decree of the Gold Commissioner, to the Supreme Court of Civil Justice of British Columbia; provided, however, that the decision of the Gold Commissioner, or of a jury summoned under the provisions of this ordinance, upon all matters of fact, shall be final and conclusive, and no appeal shall lie therefrom. No appeal shall be allowed in any cause, unless notice thereof be given

in writing to the opposite party, or his attorney, within four days after the decision complained of, and also security be given, to the approval of the Gold Commissioner, for the costs of the appeal, and the amount (if any) payable under the judgment. And the said Court of Appeal may make such order as it shall think fit. Such appeal may be in the form of a case settled and signed by the parties, their counsel, or attorneys.

PART II.

Who may be Free Miners, and their privileges.

Who may be a Free Miner. Free Miners under age to be treated as adults. Miner's Certificate.

18. Every person over but not under sixteen years of age shall be entitled to hold a claim. Minors, who shall become Free Miners, shall, as regards their mining property and liabilities contracted in connexion therewith, be treated as adults.

19. Every Gold Commissioner, upon payment of the sums hereinafter mentioned, shall deliver to any person applying for the same, a certificate, to be called a Free Miner's Certificate, which may be in the following form:—

BRITISH COLUMBIA.

Free Miner's Certificate, not Transferable.

Date,—

No.—

Valid for ——— years.

This is to certify that A.B., of ——— has paid me this day the sum of ——— and is entitled to all the rights and privileges of a Free Miner, for ——— year from the date thereof.

(Signed) G. B.

*Chief Gold Commissioner, or Gold Commissioner
(as the case may be.)*

Certificate for one or three years.

20. Such Free Miner's Certificate shall, at the request of the applicant, be granted and continue in force for a period of one year, or three years, from the date thereof, upon payment by such applicant, to the use of Her Majesty, of the sum of five dollars for one year, and fifteen dollars for three years. Such certificate shall not be transferable, and only one person shall be named therein. And every holder of a certificate shall have three clear days after the expiration thereof, and no longer, to renew the same.

Three days' grace to renew certificate. Lost certificate.

21. If any Free Miner's Certificate shall be accidentally destroyed or lost, the same may, upon evidence thereof and upon payment by the applicant of two dollars and fifty cents, be replaced by a true copy thereof, signed by the Gold Commissioner of the district wherein the original certificate was issued. Every such new Certificate shall be marked "Substituted Certificate." And unless some material irregularity be shown in respect thereof every original or substituted Free Miner's Certificate shall be evidence of all the matters therein contained.

Right to enter and mine.

22. Every Free Miner shall during the continuance of his certificate, and no longer, have the right to enter and mine upon any of the waste lands of the Crown, not for the time being occupied by any other person.

Compensation to prior occupants.

23. In the event of such entry being made upon lands already lawfully occupied for other than mining purposes, previous to entry full compensation shall be made to the occupant or owner for any loss or damages he may sustain by reason of any such entry; such compensation to be determined by the nearest stipendiary magistrate or Gold Commissioner, with or without a jury of not less than five.

Mus. be a Free Miner in certain cases.

24. No person shall be recognized as having any right or interest in or to any mining claim or ditch, or any of the gold therein, unless he shall be,

or in case of disputed ownership, unless he shall have been at the time of the dispute arising, a Free Miner.

PART III.

Registration of Claims and Free Miners' General Rights.

25. Every Free Miner locating a claim must record the same at the office of the Gold Commissioner of the district within which the same is situated, within three days after the location thereof, if located within ten miles of the said office. One additional day shall be allowed for such record for every additional ten miles, or fraction thereof. Such record shall be made in a book to be kept for the purpose, in which shall be inserted the name of the claim, the name of each locator, the number of his certificate, the locality of the mine, the date of his recording the same, and such other matters and things as may be deemed requisite by the Gold Commissioner.

26. All claims must be re-recorded annually, but any Free Miner shall, upon application, be entitled to record his claim for a period of two or more years, upon payment of the sum of two dollars and fifty cents for each and every year included in such record; and such record shall, without renewal, and for and during the time therein mentioned, but for no further period, have the same force and effect as if the same had been recorded annually.

27. It shall be lawful for the Gold Commissioner to demand from any Miner, applying to record a claim, the production of his certificate, and upon his neglect or refusal to produce the same, to refuse to record such claim or interest therein.

28. In case of any dispute, the title to claims will be recognized according to the priority of registration, subject to any question which may be raised as to the validity of the record itself, and, subject further to the terms, conditions and privileges contained in Clause 25.

29. No transfer of any claim, or of any interest therein, shall be enforceable, unless the same or some memorandum thereof shall be in writing, signed by the transferrer, or by his lawfully authorized agent, and registered with the Gold Commissioner.

30. For every record made, and leave of absence granted, or any other matter or thing whatever relating to mining, for which a special fee shall not have been provided, the Gold Commissioner shall charge a registration fee of two dollars and fifty cents as herein defined.

31. The books of record shall, during reasonable hours, be open to public inspection, and the sum of one dollar, and no more, shall be charged for every search made therein.

32. Every copy of, or extract from, any record or register kept under this ordinance, and certified to be a true copy or extract, under the hand of the Gold Commissioner or other person entrusted to take and keep such record or register, shall, in the absence of the original register, be receivable in any judicial proceeding as evidence of the matters and things therein contained; and the sum of one dollar and twenty-five cents shall be charged for each copy of a record so certified.

33. Every Free Miner shall be allowed to hold, at the same time, any number of claims acquired by purchase, but only two claims by pre-emption in the same locality, save as hereafter provided, viz.:—one quartz claim, and one other claim; subject, however, to the laws as to record, occupation, and otherwise, for the time being in force. And every Free Miner may sell, mortgage, or dispose of the same. He shall also be entitled, in addition to

Registration of claim.

Re-registration.

Production of certificate prior to registration.

Priority of rights recognized according to priority of registration.

Transfers must be in writing and registered.

General fee on recording mining matters.

Fee for search.

Certified copy of any record to be evidence.

Charge therefor.

Free Miner may hold any number of claims by purchase, and two by pre-emption, and more than two by

pre-emption in certain cases. above, to hold a pre-emption claim on each (but not on the same) hill, creek, ravine, or bench.

Miners' interest to mining property a chattel. 34. The interest which a Free Miner has in a claim shall be deemed and taken to be a chattel interest equivalent to a lease, for such period as the same may have been recorded, renewable at the end thereof, and subject to the conditions as to forfeiture, working, representation, registration, and otherwise, for the time being in force with respect to such claim.

Definition of a miners' right in a claim. 35. Every Free Miner shall, during the continuance of his certificate, have the exclusive right of entry upon his own claim, for the minerlike working thereof, and the construction of a residence thereon, and shall be entitled exclusively to all the proceeds realized therefrom; provided that his claim be duly registered, and faithfully and not colorably worked, but he shall have no surface rights therein.

Right of entry to adjacent claim-holders. Provided also that the Gold Commissioner may, upon application made to him, allow adjacent claim-holders such right of entry thereon as may be absolutely necessary for the working of their claims, and upon such terms as may to him seem reasonable.

One record covers not only the claim but a fair share of the water necessary to work it. 36. In addition to the above rights, every registered Free Miner shall be entitled to the use of so much of the water naturally flowing through or past his claim, and not already lawfully appropriated as shall, in the opinion of the Gold Commissioner, be necessary for the due working thereof.

Claims recorded in close season when laid over. 37. No claim located and recorded in any district, within fourteen days before, or at any time after the claims therein shall have been laid over to the ensuing season or other specific date, shall be deemed to be so laid over, unless so much work shall have been *bond fide* expended thereon by the holder thereof as shall, in the opinion of the Gold Commissioner, fairly entitle him to have such claim laid over.

Claims when deemed abandoned. 38. A claim shall be deemed to be abandoned and open to the occupation of any Free Miner, when the same shall have remained unworked by the registered holder thereof for the space of seventy-two hours, unless sickness or other reasonable cause be shewn; Sundays, and such holidays as the Gold Commissioner may think fit to proclaim, are to be omitted in reckoning the time of non-working.

Full-sized claims must be worked. 39. Every full-sized claim, as defined in this Ordinance, shall be represented and *bond fide* worked by the owner thereof, or by some person on his behalf.

In prospecting leave granted to work with less than full complement. Forfeiture absolute. 40. The Gold Commissioner shall have the power to regulate the number of miners who shall be required to work in prospecting a claim, or set of claims, until gold in paying quantities is found.

Undivided interest in a company when not represented, Company must either—Admit claimant as a member; Or stake off claim for him. 41. Every forfeiture of a claim shall be absolute, any rule of law or equity to the contrary notwithstanding.

42. Where any undivided mining interest in a Company shall be claimed by any Free Miner, by reason of any defect in the title or representation thereof, which defect shall be first established to the satisfaction of the Gold Commissioner, the Company shall be bound—

Either to admit the claimant as a member of the Company to the extent of such defective interest,

Or, to stake off, to the separate use of the claimant, any portion of ground in the joint ground of the Company, equal in extent to such defective interest.

In such latter event, the claimant shall not be entitled to any interest whatever in the remaining ground of the company, or be considered a member thereof, by reason of such appropriation. In either case, the company shall pay all costs and expenses, incurred by reason of allowing the non-representation aforesaid. The Gold Commissioner may make such order as to costs as he may deem just.

Company to pay costs except otherwise ordered.

PART IV.

Nature and Size of Claims.

43. From and after the date hereof, the size of claims shall be as follows:—For "Bar diggings," a strip of land 100 feet wide at high-water mark, and thence extending into the river to its lowest water-level. Size of claim.
Bar diggings.

44. For "Dry diggings," 100 feet square. Dry diggings.

45. "Creek claims" shall be 100 feet long, measured in the direction of the general course of the stream, and extending in width from base to base of the hill on each side. Where the bed of the stream or valley is more than 300 feet in width, each claim shall be only 50 feet in length, extending 600 feet in width. Where the valley is not 100 feet wide, the claims shall be 100 feet square. Creek claims.

46. "Bench claims" shall be 100 feet square. Bench diggings.

47. The Gold Commissioner shall have authority, in cases where benches are narrow, to mark the claims in such manner as he shall think fit, so as to include an adequate claim.

48. Every claim situated on the face of any hill, and fronting on any natural stream or ravine, shall have a base line or frontage of 100 feet, drawn parallel to the main direction thereof. Parallel lines drawn from each end of the base line at right angles thereto, and running to the summit of the hill, shall constitute the side lines thereof. Posts of the legal size shall be planted, 100 feet apart, on both the base line and the side lines. The whole area included within such boundary lines shall form a "Hill Claim." Hill claims.

49. In tunnelling under hills, on the frontage of which angles occur, or which may be of an oblong or elliptical form, no party shall be allowed to tunnel from any of the said angles, nor from either end of such hills, so as to interfere with parties tunnelling from the main frontage. Tunnelling under hills.

50. The Gold Commissioner shall have power to refuse to record any hill or tunnel claim on any creek, which claim, or any part thereof, shall include or come within 100 feet of any gulch or tributary of such creek. Gold commissioner may refuse to record certain tunnel claims.

51. Tunnels and shafts shall be considered as appurtenant to the claim to which they are annexed, and be abandoned or forfeited by the abandonment or forfeiture of the claim itself. Forfeiture of claim involves tunnel, &c.

52. For the more convenient working of back claims on benches or slopes, the Gold Commissioner may, upon application made to him, permit the owners thereof to drive a tunnel through the claims fronting on any creek, ravine, or water-course, and impose such terms and conditions upon all parties as shall seem to him expedient.

53. Quartz claims shall be 150 feet in length, measured along the lode or vein, with power to follow the lode or vein and its spurs, dips, and angles anywhere on or below the surface included between the two extremities of such length of 150 feet, but not to advance upon or beneath the surface of the earth more than 100 feet in a lateral direction from the main lode or vein, along which the claim is to be measured. Quartz claims.

54. In quartz claims and reefs, each successive claimant shall leave three feet unworked, to form a boundary wall between his claim and that of the last previous claimant, and shall stake off his claim accordingly, not commencing at the boundary peg of the last previous claim, but three feet further on. If any person shall take out his claim contrary to this rule, the Gold Commissioner shall have the power to remove the first boundary peg of such wrong-doer three feet further on, notwithstanding that other claims may then be staked out beyond him, so that such wrong-doer shall then have but 147 feet. And, if such wrong-doer shall have commenced work immediately at the boundary peg of the last previous claim, the Gold Commissioner may remove his boundary peg six feet further on than the open work of such wrong-doer, Regulation for working.

and all such open work, and also the next three feet of such space of six feet, shall belong to and form part of the last previous claim, and the residue of such space of six feet shall be left as a boundary wall. Every such boundary shall be deemed the joint property of the owners of the two claims between which it stands, and may not be worked or injured, save by the consent of both owners.

Discoverer's claim.

55. If any Free Miner, or party of Free Miners, shall discover a new mine, and such discovery shall be established to the satisfaction of the Gold Commissioner, the first discoverer, or party of discoverers, if not more than two in number, shall be entitled to a claim double the established size of claims in the nearest mines of the same description (*i.e.*, dry, bar, or quartz diggings). If such party consist of three men, they shall collectively be entitled to five claims of the established size on such nearest mine; and if of four or more men, such party shall be entitled to a claim and a half per man, in addition to any other claims legally held by pre-emption or otherwise. A new stratum of auriferous earth or rock, situated in a locality where the claims are abandoned, shall, for this purpose, be deemed a new mine, although the same locality shall have been previously worked at a different level. And dry diggings discovered in the vicinity of bar diggings, shall be deemed a new mine, and *vice versa*. A discoverer's claim shall, for all purposes, be reckoned as one ordinary claim.

Claims how marked.

56. All claims shall be as nearly as possible in rectangular forms, and marked by four pegs, at least four inches square, standing not less than four feet above the surface, and firmly fixed in the ground. No boundary peg shall be concealed, moved, or injured without the previous permission of the Gold Commissioner. Any tree may be used as a stake, provided that it be cut down to at least the legal height, and the stump squared as above.

Measurement.

57. In defining the size of claims, the same shall be measured horizontally, irrespective of inequalities on the surface of the ground.

Deposit of leavings.

58. The Gold Commissioner may, where deemed advisable, mark out a space in the vicinity for deposits of leavings and deads from any tunnel, claim, or mining ground whatsoever, upon such terms and conditions as he may impose.

PART V.

Bed-rock Flumes.

Grant for not more than five years.

59. It shall be lawful for the Gold Commissioner, upon the application hereinafter mentioned, to grant to any Bed-rock Flume Company, for any term not exceeding five years, exclusive rights of way through and entry upon any mining ground in his district, for the purpose of constructing, laying, and maintaining bed-rock flumes.

Three or more constitute a company.

60. Three or more Free Miners may constitute themselves into a Bed-rock Flume Company, and every application by them for such grant shall be in writing, and shall state the names of the applicants, and the nature and extent of the privileges sought to be acquired. Ten clear days' notice thereof shall be given between the months of June and November; and between the winter months of November and June, one month's notice shall be given, by affixing the same to some conspicuous part of the ground, and a copy thereof upon the walls of the Gold Commissioner's office of the district. Prior to such application, the ground included therein shall be marked out by posts of the legal size, placed at intervals of 150 feet along the proposed main line or course of the Flume, with a notice affixed thereto stating the number of feet of ground claimed on either side of such main line. And it shall be competent to any Free Miner to protest before the Gold Commissioner, within such times as aforesaid, but not afterwards, against

Protest.

such application being granted. Every application for a grant shall be accompanied by a deposit of one hundred and twenty-five dollars, which shall be refunded if the application be refused; and if the application shall be entertained, then such sum of one hundred and twenty-five dollars shall be retained and paid into the colonial treasury, for the use of Her Majesty, whether the application be afterwards abandoned or not.

61. Every such grant shall be in writing, signed by the Gold Commissioner. Grant to be in writing.

62. Bed-rock Flume Companies shall, upon obtaining such grant, be entitled to the following rights and privileges, that is to say:—

(a.) The rights of way through and entry upon any new and unworked river, creek, gulch, or ravine, and the exclusive right to locate and work a strip of ground one hundred feet wide and two hundred feet long in the bed thereof, to each individual of the Company. Rights of way and privileges upon new creeks.

(b.) The rights of way through and entry upon any river, creek, gulch or ravine worked by miners for any period longer than two years prior to such entry, and already wholly or partially abandoned, and the exclusive right to stake out and work both the unworked and abandoned portions thereof, one hundred feet in width, and one quarter mile in length, for each individual of the Company. Upon creeks worked two years and over.

(c.) And no person heretofore or hereafter locating unworked or abandoned ground within the limits of the said Company's ground, after the notice hereinbefore mentioned has been given, shall be held to have or to have had any right or title as against such Company to any ground so taken up by them. On abandoned ground.

(d.) The words "abandoned ground" shall be construed to mean all new and unworked ground, and ground not legally held and represented within the meaning of this ordinance. Interpretation of abandoned ground.

(e.) Such rights of way through and entry upon any rivers, creeks, and ravines, discovered within the two years next preceding the date of their application before mentioned, and upon any portions of which four or more Free Miners are legally holding and *bond fide* working claims, as to the Gold Commissioner, may seem advisable. Upon creeks discovered within two years.

(f.) The rights of way through and entry upon all claims which are at the time of the notice of application hereinbefore mentioned, *bond fide* and not colourably worked by any Free Miner or Miners, for the purpose of cutting a channel and laying their flume therein, with such reasonable space for constructing, maintaining, and repairing the flume as may be necessary. Provided that the owners of such last mentioned claims shall be entitled to take and receive the gold found in the cut or channel so made, but where any advantage equivalent to the cost of making the cut may accrue to the individual claimholder, by reason of such flume being laid through the claim, the Bed-rock Flume Company shall be entitled to the actual cost of making such cut to the bed-rock. Rights of way through claims legally held and worked.

(g.) The use and enjoyment of so much of the unoccupied and unappropriated water of the stream on which they may be located, and of other adjacent streams, as may be necessary for the use of their flumes, hydraulic power, and machinery to carry on their mining operations; and they shall have their right of way for ditches and flumes to convey the necessary water to their works, they being liable to other parties for any damage which may arise from running such ditch or flumes through or over their ground. Right to use of unappropriated water.

(h.) The right to all the gold in their flumes. Gold in the flume.

63. The holders of claims through which the line of the proposed flume of such Company runs, may, upon giving at least ten days' notice in writing of such their intentions to the Bed-rock Flume Company, put in a Bed-rock Flume to connect with that of the Bed-rock Flume Company; but they shall maintain the like grade, and build their flume as thoroughly, and of as strong materials, as are used by such Company. Claim-holders upon giving ten days' notice, may construct their own flume.

Where so constructed and abandoned.

64. Claim-holders so constructing their own flumes at their own expense, and they shall be entitled to all the gold found therein, but they shall be subject to the same rules and regulations with regard to cleaning up the flume, repairs and other matters in which both parties are interested, as may be adopted by such Bed-rock Flume Company; and such claim-holders shall have the right at any time before the abandonment of their claim or claims, to become members of the Bed-rock Flume Company, by uniting their claims and flume with the ground and flume of the Company, and taking an interest proportionate to that which they shall cede to the company; or should they so desire, they may abandon their claims and flume, and such abandonment shall enure to the use and benefit of the Bed-rock Flume Company.

Number of feet to be completed within certain times.

65. Every Bed-rock Flume Company shall, for each of the men constituting the same, construct and lay at least fifty feet of flume during the first year, and 100 feet annually thereafter.

Free miners entitled to use flume for tailings.

66. Any Free Miner or Miners lawfully working any claims where a Bed-rock Flume may be constructed, shall be entitled to tail their sluices, hydraulics, and ground sluices into such flume, but so as not to obstruct the free working of such flume by rocks, stones, boulders, or otherwise.

Registration of grant.

67. All Bed-rock Flume Companies shall register their grant when obtained, and a registration fee of twenty-five dollars shall be charged therefor; and they shall also pay an annual rent of twelve dollars and fifty cents for each quarter of a mile of right of way legally held by such Company. No re-registration of a grant shall be necessary.

Bed-rock flumes chattels.

68. Bed-rock Flumes and any interest or interests therein, and all fixtures are hereby declared to be personal property, and may be sold, mortgaged, transferred, or otherwise dealt with as such.

PART VI.

Drainage of Mines.

Gold Commissioner may grant rights of way through mining ground for drains.

69. It shall be lawful for the Gold Commissioner to grant to any Free Miner, company of Free Miners, or joint stock companies, for any term not exceeding ten years, exclusive rights of way through and entry upon any mining ground in his district, for the purpose of constructing a drain or drains for the drainage thereof.

Application to be in writing.

70. Every application for such grant shall be in writing, and shall state the names of the applicants, the nature and extent of the proposed drain or drains, the amount of toll (if any) to be charged, and the privileges sought to be acquired.

Ten clear days' notice to be given.
Deposit of \$125

71. Upon such application a notice, similar to that required upon application for the right of way for Bed-rock Flumes, shall be given.

72. Every application for such grant shall be accompanied by a deposit of \$125, which shall be refunded in case the application shall be refused by the Government; and if the application shall be entertained, then such sum of \$125 shall be retained and paid into the Treasury of the Colony, to the use of Her Majesty, whether the application be afterwards abandoned or not.

Grants to be in writing.

73. Such grants shall be made upon such conditions as the Gold Commissioner shall deem reasonable, and shall be embodied in writing.

Covenants.

74. The rights of way and entry above mentioned, the power to assess, levy, and collect tolls (not exceeding in amount that mentioned in the application) from all Free Miners using such drain or benefited thereby, shall be given to the grantees.

The grantees shall also covenant therein as follows:—

(a.) That they will construct such drain or drains of sufficient size to meet all requirements within a time (if any) therein named.

(b.) And have and keep the same in thorough working order and repair, and free from all obstructions, and in default thereof that the Gold Commissioner, for the time being, may order all necessary alterations or repairs to be made by any Free Miners, other than the grantees, at the cost and expense of the latter. Such cost and expense to be levied by sale (subject however to the conditions of the grant), of all or any part of the drainage works, materials, and tolls.

(c.) That they will within a reasonable time construct proper tap drains from or into any adjacent claims, upon being required so to do by the owners thereof, and in default thereof suffer such parties to make them themselves, in which case such parties shall only be chargeable with one-half the usual rates of drainage toll, or such other proportion of toll as the Gold Commissioner shall in that behalf prescribe.

(d.) That they will not in the construction and maintenance of such drains and tap drains, in any way, injure or damage the property of adjacent claim-holders, and in the event thereof, that they will make good any damage so sustained.

75. In the construction of drains to be used as tap drains only, three days' notice given as above shall only be necessary. Tap-drains.

76. The Gold Commissioner alone, or if desired by either party, with the assistance of a jury of five Free Miners, which he is hereby authorized to summon for that purpose, may ascertain whether any and what compensation shall be paid for any damage which may be caused by any such entry or construction as aforesaid. Damages.

77. Such grant shall be duly registered as hereinbefore provided, and the sum of five dollars shall be charged therefor, save when such grant gives the grantees the power and right of collecting tolls, in which case the sum of twenty-five dollars shall, instead of five dollars, be paid as a registration fee. No re-registration of any such grant shall be necessary. An annual rent of twenty-five dollars for each quarter mile, and fraction thereof, shall be paid by Drain Companies collecting tolls, to the Gold Commissioner, such rent to commence from the date of their grant. Registration.

PART VII.

Mining Partnerships.

78. All Mining Companies shall be governed by the provisions hereof, unless they shall have other and written articles of co-partnership, properly signed, attested, and recorded. Co-partnership rules if no articles are drawn up.

79. No mining co-partnership shall continue for a longer time than one year, unless otherwise specified in writing by the parties; but such co-partnership may be renewed at the expiration of each year. Partnership to continue for one year.

80. The business of co-partners herein referred to shall be mining, and such other matters as pertain solely thereto. Co-partnership business to be mining.

81. A majority of the co-partners, or their legally authorized agents, may decide the manner of working the claims of the co-partners, the number of men to be employed, and the extent and manner of levying assessments to defray the expenses incurred by the company. Such majority may also choose a foreman or local manager, who shall represent the company, and sue and be sued in the name of the company for assessments and otherwise; and he shall have power, with the consent of a majority of the company, to bind them by his contracts; and the partnership or company name must be inserted in the record of the company's claims. Any co-partner, or his duly authorized agent, shall be entitled to represent his interest in the co-partnership property to the extent thereof, by work and labor, and so long as such work and labor shall be done and performed to the satisfaction of the Majority of the partners govern.

Foreman.

foreman. In the event of such workman being discharged by the foreman, the Gold Commissioner, upon application to him, may summon the foreman before him, and upon hearing the facts, may make such order as he shall deem just.

Assessments, when leviable. 82. During the time of working, all assessments when levied, shall be payable within five days thereafter.

Penalty for default. 83. In default of payment within such time, the debtor, after having received any notice specifying the amount due by him, shall, upon such amount being ascertained by the Gold Commissioner to be correct, be personally liable to the company therefor, and his interest in the company, if so ordered, shall be sold by the Sheriff in the usual way, for the payment of the debt and costs; and should the amount realized be insufficient to meet the same, the Gold Commissioner shall have the power to issue an order, directed to the Sheriff, to sell such other personal property (if any) belonging to the debtor as may be sufficient therefor.

Notice of sale, and mode of sale. 84. Notices of sale of such debtor's mining or other property, or such part thereof as shall suffice to pay the debt and costs, shall be conspicuously posted up ten clear days prior to the day of sale, in the vicinity of such mining or other property, and at the Court House nearest thereto. Such sale shall be by public auction, and the bidder offering to pay the amount due for the smallest portion of the mining or other property, shall be entitled to such portion. The purchaser, on payment of the purchase money, shall acquire therein all the right and title of the debtor, and shall be entitled to the immediate possession thereof. A bill of sale of the mining property so sold, signed by the Gold Commissioner, and duly recorded, shall confer a good legal title thereto upon the purchaser.

Notice of abandonment to be given. 85. After a notice of abandonment in writing shall have been served on the foreman of the company by any member thereof, such abandonment shall be considered absolute, and operate as a discharge against all debts contracted by the company after such notice has been given, and no such member shall be deemed to have abandoned such interest without having served such notice as aforesaid.

Limited Liability.

86. Any mining company, composed of two or more Free Miners, may limit the liabilities of its members, upon complying with the requirements following, that is to say:—

Requirements. Upon filing with the Gold Commissioner of the district a declaratory statement, containing the name of the company, the area of the ground claimed, the location of the claim, and the particular interest of each member of the company; and also placing upon a conspicuous part of the claim, in large letters, the name of the company, followed by the word "Registered." After such conditions have been complied with, no member of such company shall be liable for any indebtedness accruing thereafter, exceeding an amount proportioned to his interest in the company.

Not less than 1/4 of full interest may be held. 87. No person shall locate, purchase, hold, or enjoy less than one-fourth of one full interest of 100 feet, in any company so constituted. This section shall not apply to gold quartz mining claims.

Accounts of companies, how to be kept. 88. All mining companies so constituted shall keep a correct account of their assets and liabilities, together with the names of the shareholders, and the interest held by each, and shall make out a monthly balance-sheet, showing the names of the creditors, and the amounts due to each, and file the same among the papers of the company; and such balance-sheet and all the books of the company shall be open to the inspection of creditors of the company at all reasonable hours.

88. No member of such company shall, after a bill of sale conveying his interest, or some portion thereof, has been duly recorded, or after notices of abandonment, in writing, of his interest shall have been left with the foreman of the company and the Gold Commissioner, be liable for any indebtedness of the company accruing thereafter.

Cessation of individual liability.

89. No such company shall declare any dividend until all liabilities due shall have been paid.

When dividend may be declared.

90. No such company shall be liable for any indebtedness contracted by any member thereof, other than its foreman or agent duly authorised.

Foreman only liable for debts.

91. If any such company fail to comply with any of the foregoing provisions, such company shall be liable to a fine of not less than twenty-five dollars, nor more than one hundred and twenty-five dollars.

Penalty for non-compliance herein.

92. The Gold Commissioner in each mining district shall keep a book exclusively for the purpose, in which he shall record all declaratory statements filed in his office, and another book in which he shall record all notices of abandonment.

Declaratory statement, how filed.

93. There shall be paid to the Gold Commissioner, for the use of Her Majesty, upon the filing of each declaratory statement, the sum of two dollars and fifty cents; and upon the filing of each notice of abandonment, the sum of one dollar, and no more.

Fee for filing.

94. All other matters not herein provided for shall, as far as is practicable, be governed by the provisions of the "Mining Joint Stock Companies' Act, 1864," but nothing in the nine preceeding sections contained shall be construed so as to repeal or vary any of the prior or subsequent sections of this ordinance.

When in force.

95. In the case of any Mining Joint Stock Company, duly registered in this Colony under the provisions of the "Mining Joint Stock Companies' Act, 1864," and not under this Ordinance, every shareholder of such company, though not a Free Miner, shall be entitled to buy, sell, hold, or dispose of any mining shares therein, anything to the contrary notwithstanding herein contained.

When persons not free miners may hold interests in companies.

PART VIII.

Administration.

96. In case of the death of any Free Miner, while registered as the holder of any mining property, his claim shall not be open to the occupation of any other person for non-working or non-representation, either after his decease, or during the illness which shall have terminated in his decease.

Deceased termers' interest.

97. The Gold Commissioner shall in all such cases take possession of the mining property of the deceased, and may cause such mining property to be duly represented, or dispense with the same at his option; and he shall sell and dispose of the same by private sale, or, upon giving ten days' notice thereof, by public auction, upon such terms as he shall deem just, and out of the proceeds pay all costs and charges incurred therein.

Power of Gold Commissioner.

98. The Gold Commissioner shall take into his custody and safe keeping, or order some person so to do, all the property of deceased miners until proper letters of administration be obtained.

Custody of property of deceased miner.

PART IX.

Leases.

100. All grants under this ordinance for any mining ground, ditch privileges, or otherwise, shall be in writing, in the form of a lease to be signed by the Gold Commissioner, and by the grantees or lessees.

All grants to be in writing.

Except otherwise expressed in this Ordinance. Applications must be in duplicate.

Ground must be marked out and notices posted up.

Deposit of \$125

Leases for ten years.

Dry Diggings.

Bar Diggings.

Quartz Reefs unworked.
Quartz Reefs abandoned.

Reservation of rights of the Crown understood, also public ways, &c.

Grant to mine only.

Covenants by lessee.

Gold Commissioner may grant ditch privileges for ten years.

101. Save where the contrary is expressed in this Ordinance, the following clauses shall apply:—Applications for leases, accompanied by a plan of the proposed undertaking, are to be sent in duplicate to the Gold Commissioner of the district wherein the ground desired to be taken is situated, who shall immediately forward it, with his report, to the Governor for his sanction, excepting in cases where the lease does not exceed five years; but the ground shall be secured to the applicant until the Governor's decision has been received. Prior to such application, the ground applied for shall be marked out by posts of the legal size, and written notice of application, signed by the applicant, shall be fixed to any post nearest to mining claims then being worked. A copy of such notice shall also be put up at the Gold Commissioner's office.

102. Every application for a lease shall be accompanied by a deposit of one hundred and twenty-five dollars, which shall be refunded if the application be refused; and if it be entertained, such sum of one hundred and twenty-five dollars shall be retained and paid into the treasury of the Colony, for the use of Her Majesty, whether the application be afterwards abandoned or not.

103. Leases will not in general be granted for a longer term than ten years, or for a quantity of ground greater than that herein prescribed, that is to say:—

In Dry Diggings, ten acres.

In Bar Diggings, unworked, half a mile in length along the high watermark. In Bar diggings worked and abandoned, one mile and-a-half in length along the high water mark.

In Quartz Reefs, unworked, half a mile in length.

In Quartz Reefs, worked and abandoned, one mile and a half in length.

With liberty in the two last cases to follow the spurs, dips, and angles on and within the surface for two hundred feet on each side of the main lead or seam.

104. Leases as above will not in general be granted of any land, alluvium or quartz, which shall be considered to be immediately available for being worked by Free Miners as holders of individual claims. Nor will such a lease be granted in any case where individual Free Miners are in previous actual occupation of any part of the premises unless by their consent.

105. Every such lease shall, without expressing the same, be understood to contain a reservation of all rights of the Crown, and all reasonable provisions for securing to the public, rights of way and water, save in so far as shall be necessary for the minerlike working of the premises thereby demised. The premises demised shall be granted for mining purposes only, and it shall not be competent to the lessee to assign or sub-let the same or any part thereof, without the previous licence in writing of the Gold Commissioner. Every such lease shall contain a covenant by the lessee to mine the said premises in a minerlike way, and also, if it shall be thought fit, to perform the works therein defined within a time therein limited. And it shall also contain a clause by virtue whereof the said lease may be avoided, provided that the lessee shall refuse or neglect to observe and perform all or any of the covenants therein contained.

PART X.

Ditches.

106. It shall be lawful for the Gold Commissioner, upon the application hereinafter mentioned, to grant to any person for any term not exceeding five years, the right to divert and use the water from any creek, stream, or lake, at any particular part thereof, and the rights of way through and entry upon

any mining ground in his district, for the purpose of constructing ditches and flumes to convey such water.

107. Ten days' notice thereof shall be given, by affixing the same to some conspicuous part of the ground, and a copy thereof upon the walls of the Gold Commissioner's office of the District, and it shall be competent to any Free Miner to protest before the Gold Commissioner within such ten days, but not afterwards, against such application being wholly or partially granted.

108. Every application for a grant of water exceeding 300 inches shall be accompanied by a deposit of one hundred and twenty-five dollars which shall be refunded in case the application shall be refused by the Government ; and if the application be entertained, then such sum of one hundred and twenty-five dollars shall be retained and paid into the Colonial Treasury, for the use of Her Majesty, whether the application be afterwards abandoned or not.

109. Every application for such rights shall be in writing, and shall state the names of the applicants, the name of the stream or lake to be diverted, the point of diversion, or ditch head, the quantity of water to be taken, the locality for its distribution, and the price (if any) to be charged to Free Miners or others for the use of such water, and the time necessary for the completion of the ditch.

110. The Gold Commissioner, upon protest being entered, for reasonable cause, shall have power to refuse or modify such application or grant.

111. Every grant of a ditch or water privilege in occupied creeks, shall be subject to the right of such registered Free Miners as shall at the time of such grant be working on the stream above or below the ditch head, and of any other person or persons whatsoever who are then in any way lawfully using such water, for any purpose whatsoever.

112. If, after the grant aforesaid has been made, any Free Miner locate and *bona fide* work any mining claim below the ditch head, on any stream so diverted, he shall, upon paying to the owner of the ditch, and all other persons, compensation equal to the amount of damage sustained, be entitled to such quantity of water to work his claim, as he may require. And in computing such damages, the expense of the construction of the ditch, the loss or damage sustained by any claim or claims then using and depending upon the water conveyed in the said ditch, and all other losses reasonably sustained shall be considered.

113. No person shall be entitled to any grant of the water of any stream mined for the purpose of selling the water to present or future claim-holders on any part of such stream. The Gold Commissioner may, however, in his discretion grant such privileges as he may deem just, when such ditch is intended to work bench or hill claims fronting on any such stream, provided that the rights of Free Miners then using the water so applied for be in all such cases protected.

114. The Gold Commissioner shall have power, whenever he may deem it advisable, to order the enlargement or alteration of any ditch or ditches, and to fix what (if any) compensation shall be paid by the parties to be benefited by such alteration or enlargement.

115. Every owner of a ditch or water privilege shall be bound to take all reasonable means for utilizing the water granted and taken by him. And if any such owner shall wilfully take and waste any unreasonable quantity of water he shall be charged with the full rent as if he had sold the same at a full price. And it shall be lawful for the Gold Commissioner, if such offence is persisted in, to declare all rights to the water forfeited.

116. It shall be lawful for the owner of any ditch or water privilege to distribute for use the water conveyed by him to such persons, and on such terms as he may deem advisable, within the limits mentioned in their application : Provided always that the owners of any ditch or water privilege

Notice to be given.

Deposit of \$125 to be paid.

Application to be in writing.

Gold Commissioner may refuse or modify grant.

Grants to be subject to Free Miners' rights.

Damages when to be paid.

Grants not to be made in certain cases.

Gold Commissioner may regulate size &c., of ditches.

Waste of water not permitted.

Water how to be distributed by grantee.

shall be bound to supply water to all applicants being Free Miners, in a fair proportion, and shall not demand more from one person than another, except where the difficulty of supply is enhanced.

Rent of \$5 per
annum on fifty
inches of
water.

117. Unless otherwise specially arranged, an annual rent of five dollars shall be paid for every fifty inches of water used for mining purposes, when not sold, and when sold, the rent to be paid for any water privilege shall be in each month one average day's receipts from the sale thereof, to be estimated by the Gold Commissioner, with the assistance, if he shall so think fit, of a jury.

General
regulations.

118. Any person desiring to bridge across any stream, or claim, or other place, for any purpose, or to mine under or through any ditch or flume, or to carry water through or over any land already occupied by any other person, may, in proper cases, do so with the sanction of the Gold Commissioner. In all such cases the right of the party first in possession, whether of the mine or of the water privilege, is to prevail, so as to entitle him to compensation and indemnity, if the same be just.

Rules for
measuring
water.

119. In measuring water in any ditch or sluice, the following rules shall be observed :—

The water taken into a ditch shall be measured at the ditch head, with a pressure of seven inches. No water shall be taken into a ditch except in a trough placed horizontally at the place at which the water enters it. The aperture through which the water passes shall not be more than ten inches high. The same mode of measurement shall be applied to ascertain the quantity of water running out of any ditch into any other ditch or flume.

Notice of
entering regis-
tered claim to
be given.

120. Whenever it shall be intended in forming or upholding any ditch, to enter upon and occupy any part of a registered claim, or to dig or loosen any earth or rock, within four feet of any ditch not belonging solely to the registered owner of such claim, three days notice in writing of such intention shall be given before entering or approaching within four feet of such other property.

Rules for
diverting or
crossing
ditches.

121. Any person heretofore or hereafter engaged in the construction of any road or work may, with the sanction of the Gold Commissioner, cross, divert, or otherwise interfere with any ditch, water privilege, or other mining rights whatsoever, for such periods as the said Commissioner shall direct.

Gold Commis-
sioner to settle
compensation
therefor,

122. The Gold Commissioner shall order what (if any) compensation for every such damage or interference shall be paid, and when, and to whom, and whether any and what works damaged or affected by such interference as aforesaid, shall be replaced by flumes or otherwise repaired, and in what manner, by the person or persons inflicting any such damage.

and to give
certificate of
authority.

123. Upon compliance with the requirements aforesaid, the Gold Commissioner shall certify in writing under his hand that the person or persons named therein were duly authorized to create the damage or interference aforesaid, and have duly fulfilled the requirements herein mentioned, and have also duly satisfied and discharged all damages by him or them occasioned to any persons whatsoever, in respect of the damage or interference referred to.

to be recorded,

124. Every such certificate shall be recorded by the said Gold Commissioner, in a book to be kept by him for that purpose at his office, and shall be at all times open to inspection, upon payment of a fee of one dollar for every inspection.

and to be
sufficient in
law courts.

125. Every such certificate so recorded shall be sufficient evidence in any court of judicature in the Colony, of all matters and things therein contained or referred to, and shall discharge the person or persons to or for whom the same is granted, from all liability with respect to the damage or interference therein mentioned.

126. The Gold Commissioner shall, upon the application of any party interested therein, and after notice as hereinafter mentioned to all whom it may concern, inquire into and decide all matters arising out of or connected with any such damage or interference as aforesaid, and such decision or judgment shall be final and without appeal, in all cases where such decision or judgment shall be given in respect of any sum or matters at issue, the amount or value whereof, which shall be stated in the decision, shall not exceed \$500.

127. In cases where such amount or value shall exceed \$500, any party aggrieved by such decision may appeal against the same to the Supreme Court of Civil Justice, upon giving written notice of such intention to the Gold Commissioner, within four days of such decision, and upon giving, within such four days, to the Gold Commissioner whose decision is appealed against, a good and sufficient bond or mortgage, the amount of which shall be fixed by the Commissioner, from the party or parties appellant, for the prosecution of the appeal, and for the payment of all such costs as may be awarded by the said Supreme Court.

128. The owners of any ditch, water privilege, or mining right, shall, at their own expense, construct, secure, and maintain all culverts necessary for the passage of waste and superfluous water flowing through or over any such ditch, water privilege, or right, except in cases where a natural stream or river applicable or sufficient for the purpose exists in the immediate vicinity.

129. The owners for the time being, not being the Government, of any ditch or water privilege, shall construct and secure the same in a proper and substantial manner, and maintain the same in good repair to the satisfaction of the Gold Commissioner, and so that no damage shall occur, during their ownership thereof, to any road or work in its vicinity, from any part of the works of such ditch, water privilege, or right, giving way, by reason of not being so as aforesaid constructed, secured, or maintained.

130. The owners of any ditch, water privilege, or right, shall be liable and shall make good, in such manner as the Gold Commissioner shall determine, all damages which may be occasioned by or through any parts of the works of such ditch, water privilege, or right, giving way as aforesaid, and the same may be recovered before a magistrate in a summary manner.

131. The publication of any written notice to the party intended to be affected thereby, in two consecutive numbers of the *Government Gazette*, or any newspaper circulating in the Colony, or by affixing the same for ten days on some conspicuous part of any premises referred to in such notice, and also at the office of the Gold Commissioner, shall be deemed good and sufficient notice for all purposes under this Ordinance.

132. Nothing herein contained shall be construed to limit the right of the Chief Commissioner of Lands and Works to lay out from time to time the public roads of the Colony, across, through, along, or under any ditch, water privilege, or mining right, in any unsurveyed Crown Land, without compensation, doing as little damage as conveniently may be in laying out the same.

PART XI.

Mining Boards and their Constitution.

133. Upon petition, signed by not less than one hundred and one Free Miners in any district, it shall be lawful for the Gold Commissioner acting for such district, to constitute therein a local board, to be called "The Mining Board."

134. The Mining Board shall consist of nine members, who shall retire annually, and shall be elected by the votes of the inhabitants of the district, who are Free Miners at the time of the election.

- Member's qualification.** 135. No Free Miner or other person shall be eligible as a candidate, unless he shall have been a registered owner of a mining interest in the district, for at least three months previous to the election.
- Voter's qualification.** 136. Each voter shall have nine votes, but shall not be allowed to give more than one vote to each candidate.
- Gold Commissioner to be returning officer.** 137. The votes of the electors shall be given in person by the voter, and the Gold Commissioner of the district shall act as the returning officer, and shall decide all questions as to qualification and disqualification of the members elect. The first election shall take place on such day as the Gold Commissioner may appoint.
- Vacancy of membership.** 138. If any member shall cease to be a registered Free Miner in the district, or shall be convicted of any misdemeanor, or felony, or of any wilful and malicious contravention of this Ordinance, or of any by-law in force in the district, he shall *ipso facto* vacate his seat in each case, and not be re-eligible, save that a member vacating his seat, only by reason of ceasing to be a registered Free Miner, shall be again eligible at any time upon his becoming a registered Free Miner.
- Absence from Meeting.** 139. Whenever any member shall absent himself from three or more consecutive meetings of the board, whether regular or adjourned meetings, he shall, upon a resolution passed by the Board to that effect, be considered to have vacated his seat therein.
- Vacancies in the Board.** 140. The Gold Commissioner shall fill by appointment all vacancies which may arise in the said Board, when the same may occur, and such appointees shall hold office until the next general election.
- Power to make by-laws, &c., which must be approved by the Governor.** 141. The Mining Board shall, subject to the previous provisions hereof, have power by resolution to make by-laws, which shall be submitted for the approval of the Gold Commissioner, (any by-laws so approved by the Gold Commissioner, shall be immediately posted in the Gold Commissioner's Office), and also from time to time to suggest any alteration or repeal of existing laws for regulating the size of claims and sluices, the mode in which claims may be worked, held, and forfeited, and all other matters relating to mining in the district; and any by-laws so made shall be binding in such district, until the same shall have been disapproved by the Governor.
- Majorities.** 142. Any resolution of such Mining Board may be passed by a bare majority of the members of such Board. The Gold Commissioner shall, within seven days after the receipt of the copy of any such resolution, signed by the Chairman of the Board, concerning any by-law or general regulation which he shall on any grounds deem expedient to lay before the Governor, make and send a fair copy thereof signed by such Gold Commissioner, with his opinion thereon.
- Mining Board Meetings.** 143. The Mining Board shall meet at such times as a majority of the said Board shall decide, and one-half of the members of the said Board shall constitute a quorum. Provided, nevertheless, that it shall be lawful for the Gold Commissioner, and so often as in his opinion occasion shall require, to call together such Mining Board.
- Votes Oral.** 144. The votes on all resolutions of the Mining Board shall be given by the members personally, and by word of mouth.
- Mode of conducting the proceedings.** 145. All questions of order, and of the time and manner of conducting the business of such Mining Board, and of the times and places of meeting after the first meeting thereof, may be decided by the majority of the said Mining Board, either from time to time as any questions shall arise, or by any fixed rules, and others as may be thought advisable.
- Power to the Governor to dissolve any Mining Board.** 146. It shall be lawful for the Governor, by an order under the Public Seal of the Colony, at any time to declare the Mining Board in any district dissolved, at a day to be named in such order, and if no day be therein named in that behalf, then as from the date of such order.

PART XII.

Penal Clauses and Clauses of Indemnity.

147. Any person wilfully or unlawfully acting in contravention of this Ordinance, or of any by-law, rule, or regulation, to be established by virtue of this Ordinance, or refusing to obey any lawful order of the Gold Commissioner, shall, on being summarily convicted before any Justice of the Peace or Gold Commissioner, be liable to a fine not exceeding \$250, or to an imprisonment not exceeding three months. Summary power in cases of disobedience

148. All penalties imposed under this Ordinance may be recovered forthwith, or at any such reasonable interval after conviction, and non-payment as shall be allowed, by distress and sale of any mining or other personal property of the offender. Penalties how recovered.

149. All fines and fees whatsoever payable under this Ordinance, except otherwise expressly appropriated, shall be paid into the Treasury of the Colony, as portion of the revenue thereof, to the use of Her Majesty, Her Heirs, and Successors. All fines and fees to be paid into the Treasury.

150. Any person convicted and sentenced to any term of imprisonment beyond thirty days, or to pay any fine beyond \$100 over and above the costs of conviction, may appeal to the Supreme Court of Civil Justice; provided that such person do, within forty-eight hours after such conviction, enter into recognizance with two sufficient sureties, conditioned personally to appear to try such appeal, and to abide the further judgment of the court, and to pay such costs as shall be by such last mentioned court awarded. And the convicting Gold Commissioner may bind over any witness or informant under sufficient recognizances to attend and give evidence at the hearing of such appeal. Appeal to the Supreme Court in Criminal and Summary Cases.

151. On any such appeal, no objections shall be allowed to the conviction on any matter of form or insufficiency of statement, provided it shall appear to the said Supreme Court, that the defendant has been sufficiently informed of the charge made against him, and that the conviction was proper on the merits of the case. No merely formal objection allowed.

152. Any person who shall wilfully damage, destroy, or alter any Free Miners' Certificate, or who shall falsely pretend that he is the person named therein, or who shall wilfully destroy or falsify any of the records and registers hereby directed to be kept, shall be guilty of felony, and being duly convicted thereof, shall be liable, at the discretion of the Supreme Court of Civil Justice, to penal servitude for not more than ten years. Certain offences. Felony.

153. Any person who shall steal, or sever with intent to steal, any gold or gold dust from any claim, or from any ground comprised in any lease granted under this Ordinance, shall be guilty of felony, and being convicted thereof, shall be liable to be punished in the same manner as in case of larceny. Stealing gold dust from claim felony.

154. Any person who shall with intent to defraud his co-partner (or in cases of agency, his principal) in any claim, secrete, keep back, or conceal any gold found in such claim, shall be guilty of felony, and upon conviction thereof, shall be punished in the same manner as if he had feloniously stolen the same. Defrauding co-partner or principal felony.

155. Nothing herein contained shall, save where such intention is expressly stated, be so construed as to affect prejudicially any mining rights and interests acquired prior to the passing of this Ordinance; and all rights and privileges heretofore and hereunder acquired shall, without the same being expressly stated, be deemed to be taken and held subject to the rights of Her Majesty, Her Heirs and Successors, and to the public rights of way and water of this Colony. Saves existing mining rights.

156. This Ordinance may be cited for all purposes as "The Gold Short Title. Mining Ordinance, 1867."

APPENDIX P.

AN ORDINANCE TO FACILITATE THE WORKING OF MINERAL LANDS.

[10th March, 1869.]

Preamble.

WHEREAS it is expedient to develop the resources of the colony by affording facilities for the effectual working of silver, lead, tin, copper, coal, and other minerals, other than gold:

Be it enacted by the Governor of British Columbia, with the advice and consent of the Legislative Council thereof, as follows:—

After Queen's
Assent to Act,
all mineral
lands open for
mining.

1. From and after the proclamation in this Colony of Her Majesty's assent to this Ordinance, every person, or association, or company of persons whomsoever, shall be free to enter and explore for silver and all the baser metals and minerals, including coal, in and under the mineral lands herein-after defined, subject nevertheless to the provisions and conditions of this Ordinance, and any other regulations affecting the acquisition and tenure thereof, which may from time to time hereafter be prescribed by law.

Prospecting
license for two
years.

2. Every person, association of persons, or company, desirous of acquiring a mine or mining claim under this Ordinance, shall, before entering into possession of the particular part of the said mineral lands he or they may wish to acquire and work for minerals, make application in writing to the Assistant Commissioner of Lands and Works for the district within which the land required is situate, for a prospecting license over such land, for any term not exceeding two years from the date of such application.

Applicant to
sent place and
description to
land office.

3. Every such applicant shall give to such Assistant Commissioner the best practicable written description of the plot of land over which the privilege is sought, after having located the same, together with a proper plan or diagram thereof shewing the position of the boundary posts to be set up by the applicant in and upon the land, and by stating in the description any other land marks of a noticeable character; and such application and plans shall be in duplicate, one of which shall be filed of record in the office of the said Assistant Commissioner at the time of its being received by him, and the other transmitted forthwith by the said Assistant Commissioner to the Chief Commissioner of Lands and Works, and retained by him for general reference.

Shape of land.

4. Every piece of land sought to be acquired under the provisions of this Ordinance shall, save as hereinafter mentioned, be of a rectangular shape, and the shortest line thereof shall be at least two-thirds the length of the longest line.

Natural bound-
aries may be
adopted in
certain cases.

5. Where the land sought to be acquired is in whole or in part bounded by mountains, rocks, lakes, swamps, or the margin of a river, or by other natural boundaries, then such natural boundaries may be adopted as the boundaries of the land sought to be acquired, and in such case it shall be sufficient for the claimant to show to the satisfaction of the Assistant Commissioner of the district that the said form conforms as nearly as circumstances permit to the provisions of this Ordinance.

Lines of adja-
cent claims
may be
adopted.

6. If the land sought to be acquired be bounded by land already held under this Ordinance, the line of such land may be adopted by the person so seeking to acquire, notwithstanding any irregularity in such line, which may have been occasioned by the adoption of a natural boundary by the claimant of the adjacent land.

7. Where a piece of land is partially or entirely enclosed between two or more claims, the claimant may acquire such enclosed piece, notwithstanding any irregularity of form or disproportion in length of any of the sides. Enclosed spaces may be adopted, notwithstanding any irregularity of shape. Application for prospecting license.

8. No applicant shall be entitled to receive a prospecting license until he shall have proved to the satisfaction of the said Assistant Commissioner, that before making such application he has caused a written or printed notice of his intention to apply for such a license to be posted on some conspicuous part of the land applied for by him, and of any adjacent (if any) sett or mining claim, and on the Court House of the district (if any) for fourteen clear days, or if the ground applied for, or any part thereof, has been previously recorded, then for one calendar month previous to his application, and that no valid opposition to his claim has been substantiated before the said Assistant Commissioner, as hereinafter mentioned.

9. Such Assistant Commissioner is hereby empowered and required, upon receiving satisfactory proof of the said applicant having complied with the preliminary requirements in that behalf hereinbefore contained, to grant to such applicant a prospecting license as aforesaid. On proof of requisites, prospecting license to issue.

10. Every applicant, upon proving to the satisfaction of such Assistant Commissioner that he has *bona fide* explored or worked for coal (or other minerals, as the case may be) during the said term of two years, shall be entitled to an extension of the said term for a second period of one year, and such further time as the Governor shall think fit. Extension thereof.

11. A prospecting license may include within the general limits therein defined, the following quantities of mineral land, that is to say:— Quantity of land included in license.

(1.) In the case of a prospecting license for coal alone, not exceeding 500 acres to each individual applicant, or 2,500 acres to any Association or Company consisting of not less than ten persons.

(2.) In the case of a prospecting license for any other minerals than coal or gold, not exceeding 100 acres to each individual applicant, or 500 acres to any association or company consisting of not less than ten persons.

Out of the above lands the licensee may, at or before the expiration of such license, or of any prolongation thereof, select for purchase the portion of mineral land to be included in a Crown Grant, as hereinafter mentioned. Licensee may select land for Crown Grant.

12. Such license may be in the form marked A. or B. (as the case may be) in the schedule hereto (which schedule is hereby made part of this Ordinance), and shall include full and exclusive power and authority to search for, raise, get, make merchantable, and sell for the use of the licensee, all metals and minerals in such license specified, and none other, within the prescribed limits, to make and erect the necessary roads, works and buildings, for profitably or conveniently carrying on the mining operations therein; with a power to the licensee, at or before the expiration of such license, or any prolongation thereof, upon compliance with the terms and conditions in this Ordinance contained, to claim a Crown Grant of such portion of the mineral land included in his license, as is hereinafter in that behalf more particularly described. Powers of license.

13. The interest of every licensee under this Ordinance shall be deemed to have absolutely ceased and determined on the expiration or other sooner determination of his license, or any prolongation thereof, unless he shall have prior to such expiration or determination made application for a Crown Grant, as herein provided; and on such expiration or determination a new prospecting license over the same mineral land, or any part thereof, may be made to any new applicant entering into possession, and complying with the requirements of this Ordinance. On expiry of license land open to new comers.

14. Every person, Association, or Company, lawfully holding a prospecting license under this Ordinance, and complying with its provisions, shall, until the determination of such his or their holding, and for the purpose of

Licensee may use stone, sand, lime, and timber.

more effectually carrying on mining operations on the premises, be entitled to the free use, without compensation, of a reasonable quantity of any unoccupied and unappropriated stone, sand, lime, and timber which may be on the premises included in such license, and may erect such buildings and machinery, and make and use such roads and works, within such limits, as he shall find necessary for the profitable conduct of his or their mining operations.

Priority of record, priority of right.

15. In case of any dispute, the right or title to or in a prospecting license, and the possession of any claim or privilege under this Ordinance, will be recognized according to the priority of record or registration with the Assistant Commissioner, subject to any question which may be raised as to the validity of the record itself.

Quantity of land in Crown Grant. Coal.

16. The quantity of mineral land for coal mining to be granted to any licensee duly applying for a Crown Grant, and fulfilling the conditions herein-after in that behalf more particularly mentioned, will be for each Association or Company of ten or more persons not exceeding 1,000 acres, selected out of the premises included in such license.

Prospecting license to include right of road or railway to sea.

17. It shall be lawful for the Chief Commissioner of Lands and Works and Surveyor General, upon proof to his satisfaction of the necessity of such grant, and upon approval by him of the plan and sections of the proposed works, which must be submitted to him, and with the sanction of the Governor, to give to any person, association, or company holding a prospecting license or Crown grant under this Ordinance, by any writing under the hand of such Commissioner, a right of way for a road, canal, or railway, from his mining claim to the sea shore, or other line of communication, for any purpose connected with such licensee's or grantee's mining operations, with full power, by himself or themselves, his or their agents, servants, and workmen, and with and without horses, cattle, boats, waggons, carriages, or other conveyances, to enter upon, across, and into any lands or waters between the premises included in such license or Crown grant, and such shore, river, or other line of communication, upon paying reasonable compensation to the owner of such intermediate land for the portions so taken, or for the use so made.

Compensation to parties affected. Amount how determined.

18. The amount, time, and manner of such compensation, and the mode of distribution thereof among the parties claiming to be entitled thereto, shall, upon the application of either party, be fixed by the Assistant Commissioner of the district, and at his discretion, either with or without a jury, consisting of not less than three, nor more than five, persons, which he is hereby empowered to summon for the purpose.

Commissioner's certificate of amount final.

19. The decision of such Assistant Commissioner or jury (as the case may be), certified under the hand and seal of such Commissioner, shall be final, and without appeal; and every such certificate shall be *prima facie* evidence, for all purposes whatsoever, of all the matters and things therein contained, in all courts of the Colony.

Saving of right to make any public roads over lands derived from the Crown.

20. Provided that nothing herein contained shall be deemed or taken to limit or affect the right of the said Chief Commissioner acting on behalf of the Crown, to lay out and make public highways in or over such intermediate lands or matters aforesaid, or other lands, whenever it shall be deemed for the public interest to create, alter, or maintain public highways, or to vary the same, through lands derived from the Crown.

Other minerals.

21. The quantity of mineral land to be granted for mining for all metals and minerals, other than coal and gold, to any licensee duly applying for a Crown grant, and fulfilling the conditions hereinafter in that behalf more particularly mentioned, shall, for each individual applicant, not exceed three chains long by two chains wide; and for each Association or Company of ten persons shall not exceed thirty chains long by six chains wide.

22. Before any such Crown grant shall issue, the licensee applying for the same shall :—

(a.) Leave with the said Assistant Commissioner of Lands and Works, and post on a conspicuous part of the premises sought for, and on the Court House of the said district, if any, for at least two calendar months previous to the record of his application for such Crown grant, and prior to the expiration of the term included in his license, or any prolongation thereof, a notice of his intention to apply for such Crown grant, with a diagram of the premises; and shall, for the same space, publish such notice in the *Government Gazette*, and a newspaper published nearest to the said mine and premises.

(b.) The said Assistant Commissioner shall thereupon post such notice in his office, for a period of two calendar months.

(c.) The said Assistant Commissioner shall (if no adverse claim be filed with him, or if filed, shall have been finally decided), give a certificate to such licensee to that effect.

(d.) Upon the application of the licensee, and delivery of such certificate, the Chief Commissioner of Lands and Works and Surveyor General, shall upon payment to him by the said applicant of such amounts as the said Chief Commissioner may estimate as the probable cost of surveying such premises, cause a survey and plan thereof to be made, to be endorsed with his approval, designating such land by its number on the official records, with the estimated value of the improvements and labor expended on the said land.

23. Upon proof, satisfactory to the said Chief Commissioner, of compliance with the foregoing provisions, and payment of the amounts next hereinafter in that behalf prescribed, together with the balance (if any) remaining unpaid of the actual cost of survey, a Crown grant shall be issued by the said Chief Commissioner to the licensee applying for the same.

24. For coal lands the price shall be as follows :—

For any quantity up to and including one thousand acres, at the rate of five dollars per acre; provided that on proof, to the satisfaction of Government, that 10,000 dollars has been beneficially expended on any land held under prospecting license for coal, a grant of 1,000 acres of the land included in such prospecting license, shall be issued to the company holding such prospecting license, without payment of the upset price of such land.

25. For mineral lands containing other than coal and gold, the price shall be as follows :—

For any quantity of land not exceeding three chains long by two chains wide, the sum of \$100, together with the costs of survey; for any quantity of land not exceeding thirty chains long by six chains wide, in the case of a company of not less than ten persons, the sum of \$250, together with the costs of survey.

26. Upon proof satisfactory to the Chief Commissioner of Lands and Works and Surveyor General, or other the person appointed for the time being in that behalf by the Governor, and a certificate in writing from such Commissioner, or other person, to the effect that any licensee or licensees applying for a Crown grant, has expended in *bona fide* mining for minerals, other than coal and gold in and under the sett or mining claim for a grant of which he is applying, to the extent of not less in any case than \$1,000, or (if an association or company of three or more persons) of not less than \$5,000, it shall be lawful for a Crown grant to issue to such person, association, or company, without the payment of any, or of only a portion, of the upset price herein fixed for the land to be included in such grant, should the Governor in his discretion so determine.

27. Upon the said survey, or at any time before the actual issue of any Crown grant under this Ordinance, it shall be lawful for the Chief Commis-

Preliminaries to Crown grant.

Issue of Crown grant.

Price of and containing coal.

Other minerals.

Remission of price on proof of effectual work for baser minerals.

Rectification of boundaries.

sioner of Lands and Works and Surveyor General, or his agent, or other person specially authorized by the Governor, in writing, in that behalf, upon payment of the actual expenses connected therewith, to rectify boundaries, and to settle finally, on the spot, any dispute which may from time to time arise, as to the actual or proper boundaries between adjacent or conflicting mining claims under this Ordinance. Every such decision, expressed in writing, and filed of record in the Head Lands and Works Office, with a plan or diagram of the proper boundaries as rectified, shall be final and without appeal, any rule of law or equity to the contrary notwithstanding, and shall be evidence in all courts in the Colony, of the several matters and things therein contained.

Adverse claimants.

28. Whenever any adverse claimants to a mine or mining claim, under this Ordinance as aforesaid (in any other respect than as to boundaries, as next hereinbefore mentioned), shall appear before the approval of the survey by the Lands and Works, as hereinbefore mentioned, all proceedings shall be stayed until a final settlement and adjudication in the courts of competent jurisdiction, of the rights of possession to such mine or claim has been obtained, when a Crown grant may issue as in other cases.

Crown grant an indefeasible title.

29. The issue of a Crown grant to any applicant under this Ordinance, save where obtained by fraud or wilful misrepresentation, shall confer and be deemed to confer on the person or persons named therein, an indefeasible and incontestable title in fee simple absolute to all the land specified in such grant, save as hereinafter excepted.

Assistant Commissioner may decide dispute.

30. The Assistant Commissioner in every district, shall have jurisdiction to hear and determine all cases of dispute between adverse claimants, to prospecting licenses and Crown grants under this Ordinance (subject, however, as to rectification and settlement of boundaries, to clause 27 of this Ordinance); and it shall be lawful for such Assistant Commissioner, and he is hereby required, on the written application of either party to a dispute, to summon a jury, to consist of not less than three, nor more than five, persons, to decide all questions of fact; and the said Commissioner may award such costs (including the costs of such jury) as he shall deem just and reasonable, and in case of default, enforce his judgment by warrant of distress of the goods and chattels of the person so making default. For the purposes of this Ordinance, and to enforce his orders and decisions, the Assistant Commissioner, in addition to the jurisdiction hereby conferred, shall have all the powers, authority, and jurisdiction now by law possessed by County Court Judges in the Colony.

His jurisdiction and powers.

Forms for proceedings.

31. In cases of dispute as to the right of possession to any mineral lands, the institution of proceedings therein may be commenced by a claim in the Form marked D, in the schedule to this Ordinance; and upon the service of such claim on the opposite party, the Assistant Commissioner shall have power to decide thereon (subject to appeal as hereinafter mentioned), with full power to place the party who shall be found entitled into possession of the land in question; and upon proper cause shewn to issue and enforce an injunction to abate any intrusion or otherwise pending any proceedings, and to appoint a receiver if necessary. Provided always, that either party to any such proceedings may require a jury to be summoned to try any question of fact (other than disputed boundary as hereinbefore mentioned) as in the last clause provided.

Notice.

Injunction.

Jury.

Appeal to Supreme Court.

32. Provided always, that any person dissatisfied with the decision of such Assistant Commissioner, on matter of law only and not on matter of fact, may appeal therefrom to the Supreme Court, and no appeal shall be allowed in any case unless notice thereof be given in writing to the opposite party, his counsel or attorney, within four days after the decision complained of, and also security be given, to the approval of the Assistant Commissioner,

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for the costs of the appeal, and the amount (if any) payable under the judgment, and to abide by any decision under such judgment; and the said Supreme Court may make such order as it shall think fit; and such appeal may be in the form of a case settled and signed by the parties, their counsel, or attorneys.

33. A certificate of every decision of an Assistant Commissioner shall be filed by him in his office, and a duplicate thereof transmitted to the head office of the Lands and Works; and the service of the final judgment or order of the Assistant Commissioner or the Supreme Court (as the case may be) in any case of disputed claim to a Crown grant, or an office copy of such judgment or order, shall authorize such Commissioner and other the proper authorities in that behalf to proceed with the issue of a Crown grant as in ordinary cases.

On certificate of decision of dispute, claim for Crown grant may proceed.

34. No proceedings, process, notice, decision or judgment under this Ordinance shall be called in question or invalidated by reason only of any informality or irregularity appearing therein or connected therewith; and every Assistant Commissioner and Judge of the Supreme Court shall have full power to make any amendments in any such proceeding (subject to such costs and terms as he shall think fit) as may be deemed necessary to prevent the failure of justice, by reason of mistakes and objections of form.

Amendment of proceedings.

35. Nothing in this Ordinance contained shall be deemed or taken in any way to limit or affect the rights of Her Majesty, Her Heirs and Successors in or to the Crown Lands of the Colony, other than is herein particularly expressed, or to limit or affect the right of the Crown to grant or lease tracts of land for mining purposes, as heretofore, on any special application made in that behalf or special cause shown, or make reserves for Government purposes or Indian settlements, or roads, bridges, buildings, or other public purposes; or to limit or affect the operation of the "Gold Mining Ordinance, 1867," other than is herein expressed.

Rights of Crown reserved.

36. No person, Association or Company shall be allowed to record more than one mining claim at one time, but he or they may, by written notice filed with the said Assistant Commissioner, withdraw from any claim for which he or they may have applied; provided always, that nothing herein contained shall prevent any person being a member of more than one Company or Association at the same time.

No person to record more than one claim.

37. If any person, Association or Company shall apply for and record more than one mining claim hereunder, at the same time, the filing of the last of such applications shall *ipso facto* forfeit all mining claims, previously recorded by the same parties, of which Crown grants had not been obtained, and all improvements thereon without compensation. Every forfeiture under this Ordinance shall be absolute, any law or rule to the contrary notwithstanding.

Forfeiture.

38. In any mineral lands not included in any particular district of any Assistant Commissioner of Lands and Works under this Ordinance, the Chief Commissioner of Lands and Works and Surveyor General shall have all the powers and authorities over such lands for all the purposes of this Ordinance as an Assistant Commissioner of Lands and Works would have had hereunder over such lands, had they been specially included in the particular district of such Assistant Commissioner.

Where no Assistant Commissioner Chief Commissioner to act.

39. It shall be lawful for the Governor from time to time, by notice published in the *Government Gazette*, to divide the mineral lands into districts, for the purpose of this Ordinance, and to define the same, and from time to time, after the like notice, to revoke, alter, or vary the same, as circumstances may appear to require.

Power to Governor to declare Mining Districts.

40. The several fees mentioned in the schedule hereto, shall be taken upon the several matters and things set opposite the respective amounts in

Fees.

such schedule particularly mentioned, and shall be deemed, recovered and accounted for as part of the general revenue.

Existing
leases may
come in under
this Ordinance.

41. Nothing herein contained shall be construed to affect the rights of any person or Company holding mineral lands under lease, reservation or grant from the Crown already made, but every such person or Company may surrender such rights, and may at once come under the provisions of this Ordinance, and hold such land or such portion thereof as shall not exceed the quantity allowed by this Ordinance, together with all the other privileges secured by such Ordinance.

Suspending
clause.

42. Provided, that this Ordinance shall not take effect until Her Majesty's approval thereof shall have been duly published in this Colony.

Interpretation
clause.

43. In the construction of this Ordinance, the following expressions shall have the following interpretations respectively, unless there be something inconsistent or repugnant thereto in the context :—

The words "Her Majesty" or "the Crown" shall mean Her Majesty, Her Heirs and Successors :

The word "Governor" shall mean and include any person administering the Government of this Colony :

The terms "Assistant Commissioner," "Chief Commissioner," shall mean Assistant Commissioner of Lands and Works, and Chief Commissioner of Lands and Works and Surveyor General respectively, and shall also include any other persons appointed by the Governor to act in lieu of those officers respectively for the purposes of this Ordinance :

The word "Mine" shall mean any locality in which any vein, lode, or stratum, or natural bed of silver or other mineral than gold, including coal, shall be mined ; and the verb "to mine" shall include any mode or method whatsoever of working the same for the purpose of obtaining the ore, mineral or metal therefrom :

"Mining Claim" shall mean and include the interest acquired or sought to be acquired, in any mineral lands under this Ordinance.

"Mineral Lands," for the purpose of this Ordinance, shall mean and include all waste lands of the Crown in the mainland of the Colony of British Columbia, including Queen Charlotte's Island, and such other portion or portions of the said Colony as shall hereafter be brought under the provisions of this Ordinance, by any proclamation or proclamations by the Governor in that behalf, and which lands shall be available for mining purposes, and whether surveyed or unsurveyed, in which lodes, veins, beds or strata of silver, tin, copper, lead, coal, iron, cinnabar, or other metal or mineral other than gold, and whether discovered or hidden, are now or hereafter shall be found in place, and not for the time being occupied by any other person or in any way reserved, or the site of an existent or proposed town, or within one hundred yards of any messuage, orchard, garden or ornamental grounds.

Short title.

44. This Ordinance may be cited for all purposes as the "Mineral Ordinance, 1869."

SCHEDULE TO WHICH THE FOREGOING ACT REFERS.

[FORM A.]

BRITISH COLUMBIA.

Mining License issued under the "Mineral Ordinance, 1869,"

District.

Date

This is to certify that _____ of _____, has by this License exclusive authority to enter, prospect, search for, and work for coal (but no other metal

or lot of land situate _____ and numbered _____ on the official plan or survey of the said _____ in the Colony of British Columbia, to have and to hold the said parcel or lot of land, and all and singular the premises hereby granted, with their appurtenances unto the said _____ and assigns for ever, subject nevertheless to the provisions of the "Mineral Ordinance, 1869." Provided nevertheless that it shall at all times be lawful for Us, our Heirs and Successors, or for any person or persons acting in that behalf by Our or Their authority, to resume any part of the said lands which it may be deemed necessary to resume for making roads, canals, bridges, towing-paths, or other works of public utility or convenience, so nevertheless that the lands so to be resumed shall not exceed one-twentieth part of the whole of the lands aforesaid, and that no such resumption shall be made of any lands on which any buildings may have been erected, or which may be in use as gardens or otherwise for the more convenient occupation of any such buildings: Provided nevertheless that it shall at all times be lawful for Us, our Heirs and Successors, or for any person or persons acting under Our or Their authority, to enter into or upon any part of the said lands, and to raise and get thereout any gold, or ore of gold, which may be thereupon or thereunder situate, and to use and enjoy any and every part of the same land, and of the easements and privileges thereunto belonging, for the purpose of raising and getting, and every other purpose connected therewith, paying in respect of such raising, getting, and use, reasonable compensation.

Provided nevertheless that it shall be lawful for any person duly authorized in that behalf by Us, Our Heirs and Successors, to take and occupy such water privileges, and to have and enjoy such rights of carrying water over, through, or under any parts of the hereditaments hereby granted, as may be reasonably required for mining or agricultural purposes in the vicinity of the said hereditaments, paying therefor a reasonable compensation to the aforesaid, _____ heirs or (successors or)

In testimony whereof, we have caused these Our letters to be made patent, and the great seal of Our Colony of British Columbia, to be hereunto affixed.

Witness Our right, trusty, and well beloved Governor of Our Colony of British Columbia, and Vice-Admiral of the same, &c., &c., at Our Government House at _____ in Our Colony of British Columbia, this _____ day of _____ in the year of our Lord one thousand eight hundred and _____, and in the _____ year of Our reign.

By command.

[FORM D.]

VICTORIA, by the grace of God of the United Kingdom of Great Britain and Ireland, and the Colonies and Dependencies thereunto belonging, Queen, Defender of the Faith.

To _____ and all persons entitled to defend the possession of _____ to the possession of which _____

some or one of them claim to be entitled under the "Mineral Ordinance, 1869."

These are to will and command you, or such of you as deny the alleged claim, within thirty days after service hereof, to appear

at _____ to defend the said claim or such part thereof as you may be advised. In default whereof judgment may be signed and you turned out of possession.

Witness, _____ at _____ the _____ day of _____ A.D., 18 _____

Assistant (or Chief, as the case may be),
Commissioner of Lands and Works.

FEES.

Upon the record of every application for a Mining License, or for a renewal thereof	...	...	\$ 5 00
Upon the record of every grant of Mining License, or a prolongation thereof	...	...	5 00
Upon the record of every Crown Grant	...	...	25 00
Upon the record of every other matter and thing under this Ordinance	...	...	2 50

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APPENDIX Q.

AN ORDINANCE TO AMEND AND CONSOLIDATE THE LAWS AFFECTING CROWN LANDS IN BRITISH COLUMBIA.

[1st June, 1870.]

Preamble.

WHEREAS it is expedient to amend and consolidate the Laws affecting Crown Lands in British Columbia.

Be it enacted by the Governor of British Columbia, with the advice and consent of the Legislative Council thereof, as follows:—

Interpretation.

1. In the construction and for the purposes of this Ordinance (if not inconsistent with the context or subject matter), the following terms shall have the respective meanings hereinafter assigned to them:—

"The Governor" shall mean the Governor of British Columbia or any person for the time being lawfully exercising the authority of a Governor of British Columbia.

"Chief Commissioner of Lands and Works and Surveyor General," shall mean and include the Chief Commissioner of Lands and Works and Surveyor General, and any person for the time being lawfully acting in that capacity.

"Commissioner" shall mean the Chief Commissioner of Lands and Works and Surveyor General of this Colony, or the person acting as such for the time being, and shall include every stipendiary magistrate for the time being in charge of any district, and every person duly authorized by the Governor to act as and for the Chief Commissioner of Lands and Works and Surveyor General, as Assistant Commissioner of Lands and Works in any district in which the land that may be referred to lies, other than that in which the chief office of the Lands and Works Department is situated, and any other district or districts for which no such Assistant Commissioner of Lands and Works as aforesaid has been appointed.

"Supreme Court" shall mean the Supreme Court of British Columbia.

"The Crown" shall mean Her Majesty, Her Heirs and Successors.

"Crown Lands" shall mean all lands of this Colony held by the Crown in fee simple.

"Act" shall mean any proclamation or Ordinance having the force of law in this Colony.

Words importing the singular number shall include more persons, parties, or things, than one, and the converse.

Repeals former Act.

2. The following Acts, Ordinances, and Proclamations relating to the disposal and regulation of the Crown Lands of the Colony are hereby repealed:

An Act dated February 14th, 1859 ;

An Act dated January 4th, 1860 ;

An Act dated January 20th, 1860 ;

The "Pre-emption Amendment Act, 1861 ;"

The "Country Land Act, 1861 ;"

The "Pre-emption Purchase Act, 1861 ;"

The "Pre-emption Consolidation Act, 1861 ;"

The "Mining District Act, 1863 ;"

The "Land Ordinance, 1865 ;"

The "Pre-emption Ordinance, 1866 ;"

The "Pre-emption Payment Ordinance, 1869 ;" and,

The "Vancouver Island Land Proclamation, 1862 ;"

but such repeal shall not prejudice or affect any rights acquired or payments ^{Saving exist-} due, or forfeitures or penalties incurred prior to the passing of this Ordinance ^{ing rights.} in respect of any land in this Colony.

Pre-emption.

3. From and after the date of the proclamation in this Colony of Her Majesty's assent to this Ordinance, any male person, being a British subject, of the age of eighteen years or over, may acquire the right to pre-empt any tract of unoccupied, unsurveyed, and unreserved Crown Lands (not being an Indian settlement), not exceeding 320 acres in extent in that portion of the Colony situate to the northward and eastward of the Cascade or Coast Range of Mountains, and 160 acres in extent in the rest of the Colony. Provided that such right of pre-emption shall not be held to extend to any of the Aborigines of this continent, except to such as shall have obtained the Governor's special permission in writing to that effect.

4. Any chartered or incorporated company may acquire such right by obtaining a special permission in writing from the Governor to that effect, but not otherwise; and the Governor may grant or refuse such permission at his discretion.

5. Any person desiring to pre-empt as aforesaid, shall first apply to and obtain from the Commissioner permission in writing to enter upon such land, which must be fully described in writing by the applicant, and a plan thereof must be deposited with the Commissioner, and such description and plan shall be in duplicate.

6. After such permission has been obtained, and within such time, not exceeding thirty days thereafter, as shall be specified by the Commissioner in such permission, such person shall enter into possession of the land so described, and place at each corner thereof a post marked with his name, or other distinguishing sign, and thereupon shall apply in writing to the said Commissioner to have his claim recorded to such tract of land, not exceeding 320 acres, or 160 acres, as the case may be, as hereinbefore provided.

7. If such land has not been previously recorded, the Commissioner shall, upon the fulfilment by the applicant of the preceding requirements, and upon payment by him of a fee of two dollars, record such land in his favor as a pre-emption claim, and give him a certificate of such pre-emption record, in the Form A. in the schedule hereto, and such record shall be made by the Commissioner in triplicate, the original to be handed to the pre-emptor, a duplicate to be retained by the Commissioner for local reference, and the triplicate to be forwarded forthwith to the head office of the Lands and Works Department, to be there examined, and if found in all respects (or if necessary after having been amended by the Chief Commissioner of Lands and Works and Surveyor General, so as to be) in accordance with the provisions of this Ordinance, to be finally registered in the Land Office Pre-emption Register.

8. Every piece of land sought to be acquired as a pre-emption claim, under the provisions of this Ordinance, shall, save as hereinafter excepted, be of a rectangular shape, and the shortest line thereof shall be at least two-thirds of the length of the longest line. Such line shall run as nearly as possible north and south, and east and west.

9. Where such land is in whole or in part bounded by any mountain, rock, lake, river, swamp, or other natural boundary, or by any public highway, or by any pre-empted or surveyed land, such natural boundary, public highway, pre-empted or surveyed land, may be adopted as the boundary of such land, and it shall be sufficient for the claimant to show to the Commissioner that the form of the land conforms as nearly as circumstances permit to the provisions of this Ordinance.

**Rectification
of Survey.**

10. The Chief Commissioner of Lands and Works and Surveyor General may, however, in carrying out any government survey, if in his opinion circumstances require it, survey pre-emption claims or purchased lands recorded previous to the date of this Ordinance, by such metes and bounds as he may think proper, and every survey so made and certified by him in writing shall be binding upon all parties affected thereby, and the survey so certified shall be deemed, in any court of this Colony, to have been done in compliance with the provisions of this Ordinance.

**Certificate of
improvement.
Form B.**

11. A pre-emptor shall be entitled to receive from the Commissioner a certificate, to be called a "Certificate of Improvement," in the Form B., in the schedule hereto, upon his proving to the Commissioner, by the declarations in writing of himself and two other persons, that he has been in occupation of his pre-emption claim from the date of the record thereof, and has made permanent improvements thereon, to the value of two dollars and fifty cents per acre. Such certificate shall be in triplicate, the original to be handed to the pre-emptor, the duplicate retained by the Commissioner for local reference, and the triplicate transmitted forthwith to the head office of the Lands and Works Department, and it shall be the duty of the Commissioner to note the issue of such certificate on the original pre-emption record, which must be produced to him at the time of applying for the certificate by the pre-emptor, and on the duplicate thereof retained in the Commissioner's office.

**Declaration.
Form C.**

12. Every such declaration shall be subscribed by the person making the same, and shall be filed with the Commissioner, who is hereby fully authorized and empowered to take the same, and such declaration shall be in the Form C. in the schedule, and shall be made before such Commissioner, under and subject to the provisions and penalties of the "Oaths Ordinance, 1869."

**Right may be
transferred.**

13. After the grant of the certificate of improvement, but not before, the pre-emption right in the land referred to in such certificate may be transferred to any person entitled to hold a pre-emption claim under this Ordinance, subject, however, to the continuance of all the provisions of this Ordinance as to occupation, forfeiture, and payment of purchase money due or to become due to the Crown.

**Mode of
transfer.
Form D.**

14. Every such transfer must be made in writing, signed by the person making the same, or his attorney in fact, in the form D. in the Schedule, or in words to that effect, and in the presence of the commissioner, and if not so made shall be void, and such transfer shall be in triplicate, the original to be retained by the person in whose favor the transfer is made, the duplicate to be retained as a record in the office of the Commissioner, and the triplicate forwarded forthwith to be registered in the head office of the Lands and Works. Upon the examination of such transfer in the manner and form so prescribed, and on payment of the fee of two dollars, the Commissioner shall cancel the previous record of such pre-emption right, and record the same anew, in the manner prescribed in section 7. in the name of the person in favor of whom such transfer shall have been made, subject to the completion of the period of occupation required by this Ordinance, and to all other the terms and conditions thereof.

**Cessation of
occupation
cancels claim.**

15. Whenever any pre-emptor shall permanently cease to occupy his pre-emption claim, save as hereinafter provided, the Commissioner may in a summary way, upon being satisfied of such permanent cessation of occupation, cancel the claim of the pre-emptor so permanently ceasing to occupy the same, and all deposits paid, and all improvements and buildings made and erected on such land, shall be absolutely forfeited to the Crown, and the said land shall be open to pre-emption and may be recorded anew by the Commissioner as a pre-emption claim, in the name of any person satisfying the requirements in that behalf of this Ordinance.

16. The occupation herein required shall mean a continuous *bona fide* personal residence of the pre-emptor on his pre-emption claim. Provided, however, that the requirement of such personal occupation shall cease and determine after a period of four years of such continuous occupation shall have been fulfilled. Meaning of occupation.

17. Every holder of a pre-emption claim shall be entitled to be absent from his claim for any one period not exceeding two months during any one year. As an ordinary rule he shall be deemed to have permanently ceased to occupy his claim when he shall have been absent continuously, for a longer period than two months, unless leave of absence have been granted by the Commissioner, as hereinafter provided. Leave of absence for two months.

18. If any pre-emptor shall show good cause to the satisfaction of the Commissioner, such Commissioner may grant to the said pre-emptor leave of absence for any period of time, not exceeding four months in any one year, inclusive of the two month's absence from his claim, provided for in clause 17. Such leave of absence shall be in the Form E. in the Schedule hereto, and shall be made out in duplicate, the original to be handed to the pre-emptor, and the duplicate to be retained of record in the office of the Commissioner. Special leave for four months.

19. If any pre-emptor shall show good cause to the satisfaction of the Commissioner, he may grant him a "license to substitute," for any period not exceeding six calendar months, in the Form F. in the Schedule hereto, in duplicate, the original to be handed to the pre-emptor, and the duplicate to be retained of record in the office of the Commissioner. The continuous personal residence of the person named in such license (such person not being or becoming subsequently to the date of the license a claimant of land under any law or proclamation regulating the pre-emption of land within the Colony) shall, during the continuance of the license, and after the record thereof with the Commissioner, be as effectual as the continuous personal residence of the claimant himself. License to substitute. Form F.

20. No person shall be entitled to hold, at the same time, two claims by pre-emption; and any person so pre-empting more than one claim shall forfeit all right, title, and interest to the prior claim recorded by him, and to all improvements made and erected thereon, and deposits of money paid to Government on account thereof; and the land included in such prior claim shall be open for pre-emption. One claim to be held at a time.

21. When the Government shall survey the land included in a pre-emption claim, the person in whose name the said claim stands registered in the pre-emption register of the land office shall, provided a certificate of improvement shall have been issued in respect of such land, and that the condition of four years occupation required by this Ordinance has been duly fulfilled, be entitled to purchase the said land at such rate, not exceeding one dollar per acre, as may be determined upon by the Governor for the time being, payable by four equal annual instalments, the first instalment to be paid to the Commissioner, at his office, within three calendar months from the date of the service on the said pre-emptor of a notice from the Chief Commissioner of Lands and Works and Surveyor General requiring payment for the said land, or within six calendar months after the insertion of a notice to such effect, to be published for and during such period in the Government Gazette, or in such other newspaper, published in the Colony, as the Commissioner may direct. Purchase of claim when surveyed.

If the purchase money for such land be not paid, according to the terms of such notice, the pre-emption claim over such land may, at the discretion of the Commissioner, be cancelled, and all such land, and the improvements thereon, and any instalments of the purchase money paid thereon, may be forfeited absolutely to the Crown.

Notice of
intention to
apply for
Crown Grant.

22. The Crown Grant to a pre-emption claim will not be issued unless it shall have been proved to the Commissioner that written or printed notices of the intended application for such grant have been posted for a period of sixty days prior to such application, upon some conspicuous part of the said pre-emption claim, and upon the adjacent claims (if any), and upon the Court House of the district wherein the land lies.

Certificate of
payment.

From G.

Crown Grant
may issue.

Form H.

23. Upon payment of the whole of the purchase money for such land, and upon production to the Chief Commissioner of Lands and Works and Surveyor General of a certificate in Form G. in the Schedule hereto, from the Commissioner of the district in which such land is situated, that the notices of intended application for a Crown Grant of such land have been duly posted as required in the previous section, without any objection to the issue of such grant having been substantiated, a Crown Grant or Conveyance, in the Form H. of the Schedule hereto, of the fee simple of the said land shall be executed in favor of the purchaser.

Reservation
to the Crown.

Provided, that every such Crown Grant shall be deemed to include, among the reservations therein contained, a reserve in favor of the Crown, its assignees, and licensees, of the right to take from any such land, without compensation, any gravel, sand, stone, lime, timber, or other material which may be required in the construction, maintenance, or repair of any roads, ferries, bridges, or other public works.

Heirs of pre-
emptor en-
titled to
Crown Grant.

24. In the event of the death of any pre-emptor under this Ordinance, his heirs or devisees (as the case may be) if resident in the Colony, shall be entitled to a Crown Grant of the land included in such pre-emption claim, if lawfully held and occupied by such pre-emptor at the time of his decease, but subject to payment of the full amount of purchase money for such land then due or to become due; but if such heirs or devisees be absent from the Colony at the time of such decease, the Chief Commissioner of Lands and Works and Surveyor General is hereby authorized and empowered to make such disposition of the pre-emption claim, and such provision for the person (if any) entitled thereto, or interested therein, as he may deem just and proper.

Extent of
claim N. and
E. of Cascade
range.

25. Every person lawfully occupying a pre-emption claim situated to the northward and eastward of the Cascade or Coast range of mountains, at the date of the passing of this Ordinance, if less than 320 acres, may, with the permission of the Commissioner, pre-empt land liable to pre-emption, and immediately contiguous to or abutting on his said existing claim, so as to make up the total amount of his claim to 320 acres, and thereupon such total claim shall be deemed to have been and to be taken up and held under the provisions of this Ordinance.

Leases.

Leases for
pastoral pur-
poses.

26. Leases of any extent of unpre-empted and unsurveyed land may be granted for pastoral purposes by the Governor in Council, to any person or persons whomsoever, being *bona fide* pre-emptors or purchasers of land in the vicinity of the land sought to be leased, at such rent as such Governor in Council shall deem expedient; but every such lease of pastoral land shall, among other things, contain a condition making such land liable to pre-emption, reserve for public purposes, and purchase by any persons whomsoever, at any time during the term thereof, without compensation, save by a proportionate deduction of rent; and to a further condition that the lessee shall, within six months from the date of such lease, stock the property demised in such proportion of animals to the 100 acres, as shall be specified by the Commissioner.

Hay leases.

27. Leases of unoccupied and unsurveyed land, not exceeding 500 acres in extent, may be granted by the Governor in Council, for the purpose of cutting hay thereon, to any person or persons whomsoever, being *bona fide*

pre-emptors or purchasers of land, at such rent as such Governor in Council shall deem expedient. The term of such lease shall not exceed five years; but every such lease shall, among other things, contain a condition, making such land liable to pre-emption, reserve for public purposes, and purchase by any persons whomsoever, at any time during the term thereof, with such compensation for improvements made thereon, to be paid to the lease-holders, as shall be fixed by the Commissioner of the District.

28. Leases of any extent of unpre-empted Crown Lands may be granted by the Governor in Council, to any person, persons, or corporation duly authorized in that behalf, for the purpose of cutting spars, timber or lumber, and actually engaged in those pursuits, subject to such rent, terms, and provisions as shall seem expedient to the Governor in Council: Provided, however, that any person may hereafter acquire a pre-emption claim to or upon any part of such leased land by complying with the requirements of this Ordinance. Such pre-emptor shall, however, only be entitled to cut such timber as he may require for use upon his claim; and if he cut timber on the said land for sale, or for any purpose other than for such use as aforesaid, or for the purpose of clearing the said land, he shall absolutely forfeit all interest in the land acquired by him, and the Commissioner shall cancel his claim thereto.

29. The application for any such lease must be in writing, in duplicate, addressed to the Commissioner, who shall retain the original in his office, and transmit the duplicate, through the head office of the Lands and Works, to the Governor in Council, who shall alone decide on any such lease.

Water.

30. Every person lawfully entitled to hold a pre-emption under this Ordinance, and lawfully occupying and *bona fide* cultivating lands, may divert any unrecorded and unappropriated water from the natural channel of any stream, lake, or river, adjacent to or passing through such land, for agricultural and other purposes, upon obtaining the written authority of the Commissioner of the District to that effect, and a record of the same shall be made with him, after due notice as hereinafter mentioned, specifying the name of the applicant, the quantity sought to be diverted, the place of diversion, the object thereof, and all such other particulars as such Commissioner may require; for every such record, the Commissioner shall charge a fee of two dollars; and no person shall have any exclusive right to the use of such water, whether the same flow naturally through or over his land, except such record shall have been made.

31. Previous to such authority being given, the applicant shall, if the parties affected thereby refuse to consent thereto, post up in a conspicuous place on each person's land through which it is proposed that the water should pass, and on the District Court House, notices in writing, stating his intentions to enter such land, and through and over the same take and carry such water, specifying all particulars relating thereto, including direction, quantity, purpose, and term.

32. Priority of right to any such water privilege, in case of dispute, shall depend on priority of record.

33. The right of entry on and through the lands of others, for carrying water for any lawful purpose upon, over, or under the said land, may be claimed and taken by any person lawfully occupying and *bona fide* cultivating as aforesaid, and (previous to entry) upon paying or securing payment of compensation, as aforesaid, for the waste or damage so occasioned, to the person whose land may be wasted or damaged by such entry or carrying of water.

34. In case of dispute, such compensation or any other question connected with such water privilege, entry, or carrying, may be ascertained by

Timber leases.

Applications for leases.

Pre-emptors may utilize water.

Notice to be given.

Priority of right.

Compensation for damage.

May be ascertained by jury.

the Commissioner of the District in a summary manner, without a jury, or if desired by either party, with a jury of five men.

Water for
mining or
other purposes

35. Water privilege for mining or other purposes, not otherwise lawfully appropriated, may be claimed, and the said water may be taken upon, under, or over any land so pre-empted or purchased as aforesaid, by obtaining a grant or license from the Commissioner of the District; and, previous to taking the same, paying reasonable compensation for waste or damage to the person whose land may be wasted or damaged by such water privilege, or carriage of water.

Transfer of
pre-emption
right transfers
water.

36. All assignments, transfers, or conveyances of any pre-emption right, heretofore or hereafter acquired, shall be construed to have conveyed and transferred, any and all recorded water privileges in any manner attached to or used in the working of the land pre-empted.

Not to waste
water.

37. Every owner of a ditch or water privilege shall be bound to take all reasonable means for utilizing the water taken by him; and if he shall wilfully take and waste any unreasonable quantity of water, it shall be lawful for the Commissioner to declare all rights to the water forfeited.

Ejectment.

Ejectment by
summary
process.

38. Any person lawfully occupying a pre-emption claim, or holding a lease under this Ordinance may, in respect thereof, institute and obtain redress in an action of ejectment or of trespass in the same manner and to the same extent as if he were seized of the legal estate in the land covered by such claims; but either party thereto may refer the cause of action to the Stipendiary Magistrate of the District wherein the land lies, who is hereby authorized to proceed summarily, and make such order as he shall deem just. Provided, however, that if requested by either party, he shall first summon a jury of five persons to hear the cause, and their verdict or award on all matters of fact shall be final.

Jury.

Jury.

Jury how
summoned.

39. It shall be lawful for any Magistrate, by an order under his hand, to summon a jury of five persons for any purpose under this Ordinance, and in the event of non-attendance of any persons so summoned, he shall have the power to impose a fine not exceeding twenty-five dollars.

Appeal.

Appeal to
Supreme
Court.

40. Any person affected by any decision of a Magistrate or Commissioner under this Ordinance, may, within one calendar month after such decision, but not afterwards, appeal to the Supreme Court in a summary manner, and such appeal shall be in the form of a petition, verified by affidavit, to any Judge of such court, setting out the points relied upon; and a copy of such petition shall be served upon the Commissioner whose decision is appealed from, and such time shall be allowed for his answer to the said petition, as to the Judge of the Supreme Court may seem advisable; but no such appeal shall be allowed, except from decisions on points of law.

Security to be
given.

41. Any person desirous of appealing in manner aforesaid, may be required, before such appeal be heard, to find such security as may be determined by the Commissioner whose decision is appealed from, and such appeal shall not be heard until after security to the satisfaction of the Commissioner shall have been given for the due prosecution of such appeal and submission thereto.

Surveyed Lands.

Reserves.

42. The Governor shall at any time, and for such purposes as he may deem advisable, reserve, by notice published in the Government Gazette, or

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in any newspaper of the Colony, any lands that may not have been either sold or legally pre-empted.

43. The upset price of surveyed lands, not being reserved for the sites of towns, or the suburbs thereof, and not being reputed to be mineral lands, shall be one dollar per acre; and the upset price of town and suburban lots shall be such as the Governor may in each case specially determine. Price of land,

44. Except as aforesaid, all the land in British Columbia will be exposed in lots for sale by public competition, at the upset price above mentioned, after the same shall have been surveyed, and made ready for sale. Due notice shall be given of all such sales; notice at the same time shall be given of the upset price, and terms of payment, when they vary from those above stated, and also of the rights specially reserved (if any) for public convenience. Land offered for sale by public competition.

45. All lands which shall remain unsold at any such auction, may be sold by private contract at the upset price, and on the terms and conditions herein mentioned, on application to the Chief Commissioner of Lands and Works and Surveyor General, or other person for the time being, duly authorized by the Governor in that behalf. Unsold lands by private contract.

46. Unless otherwise specially notified at the time of sale, all Crown Lands sold shall be subject to such public rights of way as may at any time after such sale be specified by the Chief Commissioner of Lands and Works and Surveyor General, and to the right of the Crown to take therefrom, without compensation, any stone, gravel, or other material to be used in repairing the public roads, and to such private rights of way, and of leading or using water for animals, and for mining and engineering purposes, as may at the time of such sale be existing. Land sold, subject to roads, &c.

47. Unless otherwise specially announced at the time of sale, the conveyance of the land shall include, except as provided in section 23, all trees, and all mines, and minerals within and under the same (except mines of gold and silver). Conveyance includes trees, mines, &c.

Free Miners' Rights.

48. Nothing herein contained shall exclude Free Miners from entering upon any land in this Colony, and searching for and working minerals; Provided, that such Free Miner prior to so doing shall give full satisfaction or adequate security to the satisfaction of the Commissioner, to the pre-emptor or tenant in fee simple, for any loss or damage he may sustain by reason thereof. If the amount of compensation (if any) cannot be agreed upon, the Stipendiary Magistrate or Gold Commissioner of the district wherein the land lies, with the assistance, if desired by either party, of a jury of five persons to be summoned by him, shall decide the amount thereof, and such decision and award shall be final. If there be no such Stipendiary Magistrate or Gold Commissioner in the said District, the Supreme Court shall have jurisdiction in the matter. Free Miners may search for minerals.

Free Grants.

49. It shall be lawful for the Governor in Council to make such special free or partially free grants of the unoccupied and unappropriated Crown Lands of the Colony, for the encouragement of immigration or other purposes of public advantage, with and under such provisions, restrictions, and privileges, as to the Governor in Council may seem most advisable for the encouragement and permanent settlement of immigrants, or for such other public purposes as aforesaid. Free grants for immigrant &c.

50. Nothing in this Ordinance contained, shall be construed so as to interfere prejudicially with the rights granted to Free Miners under the "Gold Mining Ordinance, 1867."

Schedule.

Books to be kept.

Application of fines and fees.

Succeeding clause.

Short title.

51. The Schedule hereto shall form part of this Ordinance.

52. Each Commissioner appointed under this Ordinance, shall keep a book or books in which he shall enter the date and particulars of every pre-emption record, certificate of improvement, license to substitute, transfer, or other document relating to or in any manner affecting any pre-emption claim within his district.

53. All fines and fees payable under this Ordinance shall be deemed to be made payable to the use of the Crown.

54. This Ordinance shall not take effect until Her Majesty's assent thereto shall have been proclaimed in the Colony.

55. This Ordinance may be cited for all purposes, as the "Land Ordinance, 1870."

SCHEDULE.

[FORM A.]

Certificate of Pre-emption Record.

Original [to be retained by the Pre-emptor] No. in District Register.
COUNTRY LAND.

BRITISH COLUMBIA.

Pre-emption Claim.

District of

Name of Pre-emptor (in full).

Date of Pre-emption Record.

Number of acres (in words).

Where situated.

Description of Boundaries of Claim.

Signature of Commissioner.

N.B.—Plan of the Claim to be drawn on the back of this sheet.

[FORM B.]

Land Ordinance, 1870.

District of

Certificate of Improvement.

I hereby certify that _____ has satisfied me by evidence (naming the witnesses, and detailing their, and any other evidence upon which the Commissioner has come to his judgment) that _____, of _____, has been in occupation, as required by the said Ordinance, of his pre-emption claim, recorded as No. _____, in this District, from the date of such Record to the present time, and that he has made improvements to the extent of two dollars and fifty cents an acre on _____ acres of Crown Land, situate at _____ Signed this _____ day of _____ 18 ____.

[FORM C.]

Declaration.

Land Ordinance, 1870.

District of

I, A. B., of _____, do solemnly and sincerely declare that :
(here detail specifically the improvements and facts declared to as having been

made by the pre-emptor on his claim, which define), and I make this solemn declaration conscientiously believing the same to be true, and by virtue of the "Oaths Ordinance, 1869."

Declared and signed by the within-named _____, on the _____ day of _____, A.D. 18____, before me _____, Commissioner.
(Place for signature of Declarant.)

[FORM D.]

Transfer of Interest.

I, A.B., of _____, being the registered holder of pre-emption claim No. _____, on the pre-emption Register of the Land Office, hereby transfer to C.D., all my right, title, and interest therein absolutely, but subject to the same conditions under which I hold the same; dated this _____ day of _____, 18____.

Witness, A. B.

[FORM E.]

Leave of Absence.

I hereby grant A. B., of _____, leave of absence from his pre-emption claim, registered as No. _____, in the Pre-emption Register, for the space of _____ from the date hereof.

Dated this _____ day of _____, 18____.

E. F.,
Commissioner.

[FORM F.]

License to Substitute.

I hereby license A. B., of _____, to occupy, for the space of _____ months, the pre-emption claim registered as No. _____ in the Pre-emption Register, in the stead of C. D., the present holder thereof.

Dated this _____ day of _____, 18____.

E. F.,
Commissioner.

[FORM G.]

Certificate of Notice.

I hereby certify that A. B. has posted, for a period of sixty (60) days, on a conspicuous part of the pre-empted claim No. _____, and also upon the adjacent land, and upon the Court House of the District, a notice for the period of sixty days, that he intends to apply for a Crown Grant of the land comprised in such claim, and that no objection to the issue of such Crown Grant has been substantiated.

Dated this _____ day of _____, 18____.

C. D.,
Commissioner.

To

The Chief Commissioner
of Lands and Works.

{LS}

Colony of
British Columbia,
No.

[FORM H.]

(Royal Arms.)

VICTORIA, by the Grace of God, of the United Kingdom of Great Britain and Ireland, and of the Colonies and Dependencies thereof, in Europe, Asia, Africa, America, and Australasia, Queen, Defender of the Faith, and so forth.

To all to whom these presents shall come, greeting. Know ye that We do by these presents, for Us, our Heirs and Successors, in consideration of the sum of _____, to us paid, give and grant unto _____,

h. heirs and assigns, all that parcel or lot of land situate _____, and numbered _____ on the official plan or survey of the said _____, in the Colony of British Columbia, To have and to hold the said parcel or lot of land, and all and singular the premises hereby granted, with their appurtenances, unto the said _____, h. heirs and assigns for ever.

Provided, nevertheless, that it shall at all times be lawful for Us, our Heirs and Successors, or for any person or persons acting in that behalf by Our or Their authority, to resume any part of the said lands which it may be deemed necessary to resume for making roads, canals, bridges, towing paths, or other works of public utility or convenience, so, nevertheless, that the lands so to be resumed shall not exceed one-twentieth part of the whole of the lands aforesaid, and that no such resumption shall be made of any lands on which any buildings may have been erected, or which may be in use as gardens or otherwise, for the more convenient occupation of any such buildings.

Provided also that it shall at all times be lawful for Us, our Heirs and Successors, or for any person or persons acting under Our or Their authority, to enter into and upon any part of the said lands, and to raise and get thereout any gold or silver ore which may be thereupon or thereunder situate, and to use and enjoy any and every part of the same land, and of the easements and privileges thereto belonging, for the purpose of such raising and getting, and every other purpose connected therewith, paying in respect of such raising, getting and use, reasonable compensation.

Provided, also, that it shall be lawful for any person duly authorized in that behalf by Us, our Heirs and Successors, to take and occupy such water privileges, and to have and enjoy such rights of carrying water over, through, or under any parts of the hereditaments hereby granted, as may be reasonably required for mining or agricultural purposes in the vicinity of the said hereditaments, paying therefor a reasonable compensation to the aforesaid _____, h. heirs or assigns.

Provided also, that it shall be at all times lawful for any person duly authorized in that behalf by Us, our Heirs and Successors, to take from or upon any parts of the hereditaments hereby granted, the right to take from any such land, without compensation, any gravel, sand, stone, lime, timber, or other material which may be required in the construction, maintenance, or repair of any roads, ferries, bridges, or other public works.

In testimony whereof We have caused these our letters to be made patent, and the great seal of our Colony of British Columbia to be hereunto affixed.

Witness our right trusty and well beloved _____, Governor and Commander-in-Chief of our Colony of British Columbia and its Dependencies, at our Government House, in our City of Victoria, this _____ day of _____, in the year of our Lord one thousand eight hundred and _____, and in the _____ year of our reign.

By command.

APPENDIX R.

EXTRACT FROM DR. RATTRAY'S WORK ON VANCOUVER ISLAND AND BRITISH COLUMBIA, 1862.

Coal.

The frequent occurrence of iron in connection with coal in other countries, and the probable prevalence of the coal formation over a large part, perhaps the greater portion of Vancouver Island, appear to indicate that this, the most useful of all the metals, which is said to have been lately discovered along the west coast, will be found in abundance. It is to her insular position, her coal fields, and her *Iron*, that England owes much of her greatness. Two of these this colony possesses; the third she may, and probably does possess, and it ought therefore to be well searched for. With iron for machinery, coal to work it, and eminent commercial capabilities, Vancouver Island might become second only to England in manufacturing and commercial prosperity.

Coal, unquestionably the most important of the known minerals of this colony, crops out at various parts, *e.g.*, at Cape Bonilla, near Port San Juan, at Nespod, to the north of Nootka Sound, both on the west coast; at Fort Rupert, and at Nanaimo, on its north-east and east coasts; and these indications of its presence near the north and south extremities of the Island, and on her east and west coasts, render it probable that this fossil is very generally distributed, especially along its east coast, where the seams are apparently extensive and valuable, although Nanaimo is the only place where it has been ascertained, as yet, that mines can be readily, profitably, and extensively worked.

The coal of Vancouver Island is of fair quality, decidedly superior to some of the Scotch coal, but cannot be compared with that of the North of England, or more especially with the Welsh. The following is an analysis and comparison of it with other varieties:—

TABLE 19.—Analysis of Vancouver Island, and other varieties of coal.

Variety.	Specific gravity.	Carbon.	Hydrogen.	Nitrogen.	Sulphur.	Oxygen.	Ash.	Per cent of coke.
Welsh (Craigola).....	1.30	84.87	3.84	0.41	0.45	7.19	3.24	85.5
Newcastle (Can's Hartly).....	1.25	79.83	5.11	1.17	0.82	7.86	5.21	60.63
Scotch (Fordal Splint).....	1.25	79.68	5.50	1.13	1.46	8.33	4.00	52.03
Borneo (Labuan).....	1.28	84.52	5.74	0.80	1.45	20.75	7.74	.....
Chili (Conception Bay).....	1.29	79.55	5.76	0.95	1.98	13.24	7.52	43.63
Sydney.....	.....	82.39	5.32	1.23	0.70	8.32	2.04	.....
Vancouver Island.....	.....	66.93	5.32	1.02	2.20	8.70	15.83	.....

It is a bituminous coal, lighter than Welsh coal by about ten per cent., consumes rapidly, and answers well for steaming purposes, especially with fires and boilers made to suit it. Although a good gas coal, it is apt to form clinker, leave a large ash, and does not coke well for smelting purposes, or foundries. The large portion of sulphur it contains is a disadvantage; that of Fort Rupert, where the coal was first discovered, is said to contain less. All hitherto mined, however, of which the above is an analysis, is little else than surface coal, and cannot be fairly taken as a criterion of the Nanaimo coal, which is perceptibly improving as the mines deepen. An extensive

seam has lately been discovered of superior quality. Unfortunately no general survey of the coal formations of the island has yet been made.

Advantages
resulting from
it.

For developing the manufactures, commerce, and mines of the colony, the importance of an unlimited supply of cheap coal must be obvious. Machinery may be generally introduced, and many manufactures and processes in the arts originated, which would otherwise be impossible. Instead of tedious sailing craft, the colony may have steamers, railways, and greatly facilitated land and water carriage, machinery for cotton spinning, saw and flour mills, and many manufactures.

Her minerals, both native and imported, may be smelted and made available on the spot, instead of being sent in the rough state to a foreign market, and sold at a great disadvantage; while by these means her commerce will receive an impulse, and the traffic of her merchant steamers will be greatly increased.

Exportation of
coal.

The exportation of Vancouver Island coal is increasing, and will soon be valuable in itself, besides aiding the development of commerce and shipping by its carriage. Nanaïmo fortunately possesses a commodious, safe and easily accessible harbor, in which vessels of 1,500 tons can lie close to the mines, and load with facility, and will soon become an important coal-exporting depot—the Newcastle of the colony. Energetic measures are now in progress to develop the resources of its mines.

The export of coals from Nanaïmo will be immensely increased when a supply can be furnished commensurate with the demand, and the price be somewhat reduced. The following statement of the imports of coal into San Francisco, will show that the quantity of Nanaïmo coal imported during the first three months of 1862, nearly equalled that for the whole of the previous year:—

TABLE 20.—Statement of coals transported into San Francisco.

Variety.	Jan. 1st to Dec. 16th, 1861.	Jan. 1st, to March 15th, 1862
	Tons.	Tons.
English	24,895	5,036
Cumberland	2,662	2,876
Chili	12,254	
Sydney	12,304	3,942
Japan	25	125
Coos and Bellingham Bay (imported free of duty)	16,183	2,535
Anthracite, (New York)	26,291	5,176
Vancouver Island (Nanaïmo)	5,204	4,235

Advantages to
accrue when
price is re-
duced.

The following table will show the advantage as to price, which the coal of Nanaïmo will have in the San Francisco and other markets in the Pacific, when its first cost at the mines, which is now so very high, can be reduced:—

TABLE 21.—Prices of different varieties of Coal at Vancouver Island, San Francisco, &c.

Variety.	Price at the Mines.	Price at Victoria.	Price at San Francisco.	Price in China.
Nanaïmo Coal	Dollars. 6 to 7	Dollars. 9 to 10	Dollars. 12 to 15	Dollars. 12 to 15
Chilian "			12 to 15	
English "			15 to 20	15 to 20

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Jan. 1st, to
March 15th, 1862

Tons.
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2,876
3,942
125
2,535
5,176
4,235

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reduced :—
Island, San

Price in
China,

Dollars.

15 to 20

Her proximity to the markets of the Pacific, and the ultimate cheapness of her coal, will enable Vancouver Island to compete successfully in supplying the greater part of that ocean, in many parts of which colonies are springing. China, and Eastern Asia generally, are being opened up to commerce; steamers now ply frequently across its previously little traversed waters, and the consumption of coal is daily increasing. The demand has hitherto been supplied at high prices by the coal-fields of the Pacific itself, but principally by England.

Prospect of an
extended trade
in coal.

The more important coal-fields of the Pacific are those of Panama, Chili, Australia, and New Zealand, Labuan, and the more recently discovered mines of Nanaïmo. The Labuan coal is of inferior quality; moreover, the climate being unhealthy, the mines are imperfectly worked, and are not likely ever to rival those of this colony. The coal of Panama, Chili, New Zealand, and Australia, is good, but the many obvious advantages which this island possesses for exporting coal, together with its abundance, cheapness, and quality, will ultimately enable it in a great measure to supplant the English, Chilian, and other coals now sold in the San Francisco, and other markets, and Vancouver Island will thus become the chief source of supply, if not for the entire Pacific, at least for all but the countries in the more immediate neighbourhood of these other mines.

The Coos Bay coal is a lignite or brown tertiary coal, similar to that found in a thin seam on the south bank of the Fraser River, near its mouth; and the Bellingham Bay coal, now imported into San Francisco in considerable quantities, is inferior to that of Nanaïmo, so that neither of these can prevent the latter from monopolising the supply.

One of the principal markets for the coal of Nanaïmo, will be the coast of Eastern Asia, and the large and rapidly increasing steam fleets, naval and mercantile, which ply along that coast, which now draw their supply principally from England at high prices.

Market for
coal in Eastern
Asia.

(On the 31st August, 1861, the British Fleet in China consisted of eleven gun-boats and nineteen of larger size, making a total of thirty vessels and 6,340 horse power.)

APPENDIX S.

AN ORDINANCE TO AMEND THE LAW RELATING TO
JOINT STOCK COMPANIES.

[8th March, 1866.]

Preamble.

WHEREAS it is expedient that the laws relating to the Incorporation, Regulation, and Winding-up of Trading Companies and other Associations should be consolidated and amended:

Be it therefore enacted by the Governor of British Columbia, by and with the advice and consent of the Legislative Council thereof, as follows:—

Repeal of B. C. Joint Stock Co.'s Act, and Mining J. S. Ordinance, 1864.

Imperial Act. The Companies' Act, 1862, in force.

The expression "The Court," shall mean the Supreme Court of Civil Justice of British Columbia.

Judge thereof to have powers of Lord Chancellor.

Power to execute deeds out of the United Kingdom.

Fees payable the same as those in England.

Colonial Secretary to be substituted for Board of Trade.

Public notices, how given.

Mining Companies formed here may be incorporated by obtaining Certificate of Registration from a Gold Commissioner.

1. The "British Columbia Joint Stock Companies' Act," and the "Mining Joint Stock Companies' Ordinance, 1864," are hereby repealed.

2. An Act of the Imperial Parliament, passed in the Session of Parliament, holden in the 25th and 26th years of the reign of Her Majesty Queen Victoria, chap. 89, intituled "The Companies' Act, 1862," shall, from and after the passing of the Ordinance, be and have, as far as practicable, and save as hereinafter altered and modified, the force of law in this Colony.

3. The expression "the Court," as used therein, shall, instead of the interpretation given thereto in clause 81 of such Act, mean the Supreme Court of Civil Justice of British Columbia, and any judge of such last mentioned court shall have and exercise all the powers in and by the said Act conferred upon the Lord Chancellor and Vice Chancellor.

4. The power given to companies to empower any person as their attorney, to execute deeds in their behalf, in any place not situate in the United Kingdom, shall apply to the execution of deeds in this Colony, and such authority shall include a power to companies in this Colony to empower an attorney to execute deeds on their behalf in the United Kingdom.

5. All fees payable under this Ordinance shall be the same as those payable under "The Companies' Act, 1862," provided, however, that such shall be collected in the ordinary way, and not by stamps, and be paid into the Treasury of this Colony to the use of Her Majesty, her Heirs and Successors.

6. Until some other person or persons shall be appointed in that behalf by the Governor, the Colonial Secretary of British Columbia shall have and exercise all the powers and duties of the Board of Trade, in the said Act mentioned. The Official Liquidator therein mentioned shall be appointed by the said Supreme Court of Civil Justice.

7. Notices, by the said Act required to be published in the gazettes and newspapers therein mentioned, shall, instead thereof, be published in the *Government Gazette*, and in such other newspapers as may be ordered.

8. When companies are formed in this Colony for mining purposes, all papers and documents required to be registered under the said Act with the Registrar of Joint Stock Companies may, instead thereof, be registered with any Gold Commissioner or Assistant Gold Commissioner; provided, that in such cases, every such document shall be delivered to him in duplicate, and upon receipt of the same, and of the fees for registration, and upon the requirements of the Act being fulfilled, such company shall receive from the said Gold Commissioner the usual Certificate of Registration, and upon such certificate being granted, the company shall be deemed to be duly incorpo-

rated, and the duplicate of all such documents above mentioned, and of the Certificate of Registration shall be forthwith transmitted by such Gold Commissioner to the Registrar of Joint Stock Companies, and such Certificate of Registration shall have the same force and effect as if it had been granted by such Registrar, and shall be received in any court as evidence, in like manner as the Certificate of Registration of such Registrar.

9. All the requirements of the said Act as to Registration thereunder, of companies already registered, shall apply as well to mining companies now formed in this Colony under the "Mining Joint Stock Companies' Ordinance, 1864," as to all other Joint Stock Companies formed under the Joint Stock Companies' Act hereby repealed; and all the provisions of Part IX. of the said Act, save as hereinbefore altered, shall apply to all Mining companies heretofore or hereafter incorporated.

Requirements as to Registration of Companies' Acts, 1862, and Part IX. shall apply to all incorporated companies.

10. Nothing herein contained shall in any way be construed to interfere with the provisions of the "Gold Mining Ordinance, 1865;" but all the provisions for winding up companies under this Ordinance shall be extended and applied to Mining Companies registered under the provisions of Part VII. of the said "Gold Mining Ordinance, 1865."

Except to companies registered under the Gold Mining Ordinance, 1865.

11. The General Orders and Rules for regulating the practice and mode of procedure under this Ordinance in this Colony, shall be those of the High Court of Chancery of England, bearing date the 25th day of November, 1862; provided, that it shall be lawful for the Judge of the Supreme Court of Civil Justice of British Columbia, with the sanction of the Governor, to modify or alter the same when expedient.

General Orders and Rules of 25th November, 1862, in force here.

12. This Ordinance shall be cited as "The Companies' Ordinance, Short Title, 1866."

APPENDIX T.

EXTRACT FROM BLUE-BOOK, 1870.

RETURN of the Produce, Stock, &c., of British Columbia.

Name of the County, District, or Parish.	CROPS.						Stock.				PRODUCE.										Price of Produce, Nature of the Produce, and the Price of each in Sterling.						
	Nature of the Crop, and the Number of Acres of Land in each Crop.						Number of				Nature of the Produce, and the Quantity of each.																
	Wheat.	Barley.	Oats.	Pears.	Potatoes.	Garden Stuff.	Various.	Total Number of Acres in Crop.	Horses.	Horned Cattle.	Sheep.	Pigs.	Wheat.	Barley.	Oats.	Pears.	Potatoes.	Garden Stuff.	Turnips.	Hay.	Various.	Wheat, per lb.	Barley.	Oats.	Potatoes.	Garden Stuff.	Various.
Victoria District...	No Returns.												Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	No Returns.	No Returns.	No Returns.	No Returns.	No Returns.	No Returns.
Sooke							2004	202	840	2102	532		103	82	260	66	257	56	948	910							
Esquimalt							248	10	207	30	88		6	20	23		113		25	30							
Sanich							1724	128	953	536	661		68	171	249	4	176	149	8	139							
Esquimalt Metchoin							1227	126	1171	2001	362		29	111	101	25	152	27	346	425							
Lake and Highland							616	65	418	92	339		8	16	83	15	151		255	180							
New Westminster ..	378	124	425	106	186	107	1226	235	4078	22	1855	2000	1500	2000	2000	2000	2000	2000	2000	2000	2000	3604	2	1	2	2	2
Jillouet and Clinton ..	2000	600	150	30	120	50	2970	900	3000	2000	1500	1500	2000	2000	2000	2000	2000	2000	2000	2000	2000	3604	2	1	3	3	3
Hope, Yale & Lytton ..	1952	1232	460	60	310	210	4354	1900	6000	1940	1650	1500	13000	14500	1000	8000	3000	8000	3000	8000	3000	21	2	8	8	10	
Kootenay	180	45	31	3	6	8	93	180	425	161	24	110000	100000	100000	1000	2500	3000	2500	3000	800	7	5	5	5	5	5	
Cariboo	200	415	606	41	141	135	150	1688	321	816	267	420	1000	1100	900	1500	2000	5500	7400	1500	4	4	4	4	4	4	
Nanaimo	14	24	127	4	18	24	213	32	795	54	220	1800	1800	1800	1500	2000	5500	7400	1500	4	4	4	4	4	4	4	
Comox	4	14	200	1	321	226	666	21	542	200	200	1800	1800	1800	1500	2000	5500	7400	1500	4	4	4	4	4	4	4	
Victoria City	330	74	1490	400	400	400	330	74	1490	400	400	1800	1800	1800	1500	2000	5500	7400	1500	4	4	4	4	4	4	4	
Cowichan																											

* No return can be given, as much of the oats and barley is consumed in the straw.

APPENDIX U.

EXTRACT FROM REV. M. C. LUNDIN BROWN'S PAMPHLET
ON BRITISH COLUMBIA.

Published 1863.

*Natural Productions—Animal and Vegetable.*Fish of
Columbia.

No coasts or rivers are more abundantly supplied with fish than those of British Columbia. These are so numerous and so varied that to become thoroughly acquainted with their habits would almost involve the study of a life-time. Taking them in their order, the first fish that visit our shores are the herrings, that come in shoals into the harbors in the month of March. The herring caught in Burrard Inlet is small, but good. There are larger and finer fish, equal indeed to those of our own seas, in the Gulf of Georgia, where there only skilful fishermen to catch them. Next, in the month of April, come the famous houlicans. They enter the river in millions, and their presence is at once made known by the sea-gulls which wheel above the shoals, and dart about among them for their prey, startling the usually still Fraser with their shrill cries. The houlican is somewhat larger than the sprat, and is a very delicate and delicious fish, so full of oil that it is said those caught in the north will burn like a candle. There can be little doubt that they would make excellent sardines; they could be preserved in their own oil.

Herrings.

Houlicans.

Salmon.

The salmon begin to enter the river in March, and species after species continue to arrive until October, the successors mixing for a time with the last of their forerunners. There is a greater degree of certainty in periodical arrivals of each kind in this stream, than at the coast and islands.

Silver or
Spring
Salmon.

The most valuable kind, the Silver or Spring Salmon, is sure to make his appearance. It is impossible to say how many species there are. During the summer of 1861, five or six different kinds passed up the Fraser to a greater or lesser distance from the mouth. A considerable portion of them (chiefly those of the silver and hook-bill species), make their way up the river to a distance of a thousand miles, even forcing themselves up the streams on the sides of the Rocky Mountains. With such rapidity do they travel, that they have been known to reach Lilloet within ten days of their arrival at the mouth of the river.

Many perish on their toilsome journey; faint and weary they will not pause nor turn back, but press onward and upward, battling still with the mighty current, until at length exhausted with the contest, they are driven ashore to die.

Their grand object is to propagate their species, and an instinct impels them to deposit their spawn in the very head waters of the stream; whereby they fulfil the design of Providence, supplying food on their way to thousands of human beings in the interior.

Time of
arrival.

The spring or silver salmon begins to arrive in the river in March, or early in April; it is most plentiful in June, and by the early part of July has mostly passed up the river. It is a remarkably fine fish, weighing four to twenty-five pounds; it has been known to reach as high as seventy-two pounds. The fish sent to the exhibition of 1862 weighed forty pounds.

Of those that arrive first, the greater portion are red, the next are red and white (the flesh of the back above the side lines red, belly white), the last are principally white. This fish is easily cured, and stands well at market.

The second kind arrives in June, continuing till August, a small handsome fish, back green, belly white, flesh red, average size five to six pounds, easily cured, and brings the highest price at market. The third, coming in August, weighs on an average seven pounds,—also an excellent fish.

Next, the hoan or humpback salmon, which comes every other year, **Humpback** arriving in August and remaining until winter, size six pounds, seldom four-**Salmon** teen pounds. The male has a hump or arched back, and hooked upper jaw, the back is covered with skin, the belly with small scales. The hoan is not much esteemed when pickled, but dried and smoked it does well.

The fifth is the hookbill, a hideous animal, which arrives in September, **Hookbill** remaining until winter, when many of them return to the sea (size twelve to **Salmon** fifteen pounds, they even attain to forty-five pounds); the flesh is white, the female is without the extraordinary hooked snout and teeth, which characterise the male (not edible).

The smelt arrives in the Lower Fraser early in spring, and after spawn-**Smelt** ing, returns to the sea.

An excellent trout is caught in the Lower Fraser, weighing seven and **Trout** eight pounds; a smaller one, of three or five pounds, abounds in its tributaries. Twenty mountain trout were recently caught in a stream near Hope, whose aggregate weight was 146 pounds; two of them weighed eleven pounds a piece. Trout of various species are found in most of the lakes, rivers, and streams of the country.

Nor is the royal fish wanting in these waters. The sturgeon abounds in **Sturgeon** the rivers and lakes throughout the year; he has been found as far up as Fraser's Lake and near the Rocky Mountains. In winter he retires to the bottom in deep water, and sometimes goes out to sea to return in spring. They attain a size ranging from 100 to 500 pounds and upwards. The female is the larger—as she lies in the deep water she is rarely caught, hence the comparative rarity of caviare, which is made from her roe. A female sturgeon contains great quantities. From one killed in the Fraser recently, a bushel was taken. The flesh also of the sturgeon is by some considered good, when properly cooked.

It is believed that there are extensive cod-banks in the Gulf of Georgia. **Cod, Whales,** In the northern seas whales and seals abound. Indeed, the extent and **and Seals.** variety of the fisheries of British Columbia are immense.

Oysters abound in Burrard Inlet, good, but small—they only require a **Oysters.** little care—transplantation, feeding,—to equal those for which Britain has so long been famous.

It is evident that in these fisheries British Columbia possesses a source **Value of the** of immense wealth. Her countless salmon (to speak of them alone) must **Fisheries.** form one day a very important article of export. Unfortunately no one has as yet taken up this branch of trade. Here, as elsewhere, it is capital that fails. The process of curing is a work of care and time. But there must come ere long to these shores men of practical knowledge and capital sufficient to give this business a start, and there is no fear that a market will be wanting. In California there is a good market, for her own rivers do not supply all the salmon she needs; so too eventually, no doubt, the colony will be able to export its fish to the Sandwich Islands, Australia, and New Zealand, perhaps even to England.

APPENDIX V.

EXTRACT FROM PAMPHLET BY DR. C. FORBES, M.R.C.S.ENG.

LIST OF ANIMALS FOUND IN VANCOUVER ISLAND.

Animals of
Columbia.

American Panther, or Cougar	<i>Felis concolor.</i>
Wild Cat	<i>Lynx fasciatus.</i>
Gray Cat	<i>Canis occidentalis.</i>
Dusky Wolf	<i>Canis (lupus) occidentalis.</i>
Red Fox	<i>Vulpes macrourus.</i>
Fisher, Black Cat	<i>Mustela Pennantii.</i>
Mink, or Minz	<i>Putorius vison.</i>
American Sable, or Pine Martin	<i>Mustela Americana.</i>
Racoon, black footed	<i>Procyon Hernandezii.</i>
Beaver	<i>Castor Canadensis.</i>
Black Bear	<i>Ursus Americanus.</i>
Brown Bear	do do
Wolverine	<i>Gulo luscus.</i>
Common Otter	<i>Lutra Californica.</i>
Sea Otter	<i>Enhydra marina.</i>
Red, or Pine Squirrel	<i>Sciurus Douglasii.</i>
Red Deer	
Elk	<i>Cervus Canadensis.</i>
Black Tailed Deer	<i>Cervus Columbianus.</i>
Ermine	<i>Mustela erminea.</i>
Musquash, or Musk Rat	<i>Fiber zibethicus.</i>
Sea Lion	<i>Platyrrhynchus leoninus.</i>
Hair and fur Seals	<i>Phoca, vitulina, & Arctocephalus ursinus</i>
Mountain Goat	<i>Aplocerus montanus.</i>

LIST OF BIRDS FOUND IN VANCOUVER ISLAND.

Birds of
Columbia.

Pigeon Hawk	<i>Falco columbarius.</i>
Sparrow Hawk	<i>Falco sparverius.</i>
Goshawk	<i>Astur atricapillus.</i>
Sharp shin Hawk	<i>Accipiter fuscus.</i>
Western Red Tail Hawk	<i>Buteo montanus.</i>
White-headed Eagle	<i>Haliaetus leucocephalus.</i>
Great Horned Owl	<i>Bubo Virginianus.</i>
Snowy Owl	<i>Nyctea nivea.</i>
Saw Whet Owl	<i>Nyctale Acadica.</i>
Pigmy Owl	<i>Glaucidium gnoma.</i>
Harris's Woodpecker	<i>Picus Harrisii.</i>
Gairdner's Woodpecker	<i>Picus Gairdneri.</i>
Red breasted Woodpecker	<i>Sphyrapicus ruber.</i>
Pileated Woodpecker, or Log Cock	<i>Hylatomus pileatus.</i>
Red Shafted Flicker	<i>Colaptes Mexicanus.</i>
Red backed Humming Bird	<i>Selasphorus rufus.</i>
Night Hawk	<i>Chordeiles popetue.</i>
Belted Kingfisher	<i>Ceryle alcyon.</i>

Olive sided Flycatcher	Contopus borealis.
American Robin, Migratory Thrush ..	Turdus migratorius.
Varied Thrush	Turdus naevius.
Western Blue Bird	Sialia Mexicana.
Ruby Crowned Wren	Regulus calendula.
Golden Crested Wren	Regulus Satrapa.
American Titlark	Anthus Ludovicianus.
Macgillivray's Warbler	Geothlypis Macgillivrayi.
Orange Crowned Warbler	Helminthophaga celata.
Audubon's Warbler	Dendroica Audubonii.
Yellow Warbler	Dendroica aestiva.
Louisiana Tanager	Pyranga Ludoviciana.
Barn Swallow	Hirundo horreorum.
White bellied Swallow	Hirundo bicolor.
Violet green Swallow	Hirundo thalassina.
Warbling Flycatcher	Vireo gilvus.
Blue-headed do	Vireo solitarius.
Winter Wren	Troglodytes hyemalis.
Rock Wren	Salpinctes obsoletus.
Slender bill Nuthatch	Sitta aculeata.
Chesnut backed Tit	Parus rufescens.
Western purple Finch	Carpodacus Californicus.
Pine Finch	Chrysomitris pinus.
Western white crowned Sparrow	Zonotrichia Gambelli.
Golden crowned Sparrow	do coronata.
Oregon Snowbird	Junco Oregonus.
Chipping Sparrow	Spizella socialis.
Western song Sparrow	Melospiza rufina.
Townsend's fox Sparrow	Passarella Townsendii.
Blackheaded Grosbeak	Guiraca melanocephala.
Oregon ground Robin	Pipilo Oregonus.
Western meadow Lark	Sturnella neglecta.
Brewer's Blackbird ..	Scolecophagus cyanocephalus.
Redwing do	Agelaius phoeniceus.
American Raven	Corvus carnivorus.
Northwestern Fish Crow	do caurinus.
Steller's Jay	Cyanura Stellerii.
Band-tailed Pigeon	Columba fasciata.
Dusky Grouse	Tetrao obscurus.
Ruffed Oregon Grouse, or "Partridge,"	Bonasa Sabinii.
Sandhill Crane	Grus Canadensis.
Great Blue Heron	Ardea Herodias.
Surf Bird	Aphriza virgata.
Bachman's Oyster Catcher	Haematopus niger.
Black Turnstone	Streptopelia melanocephalus.
Wilson's Snipe : English Snipe	Gallinago Wilsonii.
Telltale Tattler	Gambetta melanoleuca.
American Coot or Mud Hen	Fulica Americana.
The Swan	Cygnus Americanus.
Canada Goose	Bernicla Canadensis.
White cheeked Goose	do Leucopareia.
Hutchins' Goose	do Hutchinsii.
Snow Goose	Anser hyperborea.
Mallard or Stock Duck	Anas boschas.
Green winged Teal	Nettion Carolinensis.
Baldpate or American Widgeon	Mareca Americana.

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phalusursinus

Big blackhead or Scaup Duck	<i>Fulix marilla.</i>
Canvas-back Duck	<i>Aythya vallisneria.</i>
Golden eye Duck	<i>Bucephala Americana.</i>
Bufflehead Duck	do <i>albeola.</i>
Harlequin Duck	<i>Histrionicus torquatus.</i>
Longtailed Duck or South-southerly	<i>Harelda glacialis.</i>
Velvet Duck	<i>Melanetta velvetina.</i>
Surf Duck	<i>Pelionetta perspicillata.</i>
Goosander	<i>Mergus Americanus.</i>
Redbreasted Merganser	do <i>serrator.</i>
Hooded do	<i>Lophodytes cucullatus.</i>
Violet-green Cormorant	<i>Graculus violaceus.</i>
Short-tailed Albatross	<i>Diomedea brachyura.</i>
Glaucous winged Gull	<i>Larus glaucescens.</i>
Suckley's Gull	do <i>Suckleyi.</i>
Great northern Diver	<i>Colymbus torquatus.</i>
Blackthroated Diver	do <i>arcticus.</i>
Redthroated Diver	do <i>septentrionalis.</i>
Rednecked Grebe	<i>Podiceps griseigena.</i>
Western do	do <i>occidentalis</i>
Horned do	do <i>cornutus.</i>
Western Guillemot	<i>Uria columba.</i>
Marbled Auk	<i>Brachyramphus marmoratus.</i>

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APPENDIX W.

EXTRACT FROM J. D. PEMBERTON'S WORK ON VANCOUVER
ISLAND AND BRITISH COLUMBIA.

GAME.

Foremost among the inducements to the middle classes to emigrate to these colonies, is the consideration that they can there enjoy many recreations, such as horse exercise, shooting, fishing, &c., which at home are attended with so much expense. Game in
Columbia.

All the pleasures that can be derived from renting a moor, or owning a deer park in Scotland, from supporting game keepers, resisting poachers, or incurring licences, from tipping whips, or feeding ostlers, are trivial, compared with the sport within the reach of a settler with moderate means on the Pacific Coast; to say nothing of game being there, in an economical point of view, a very important item.

For simplification sake, let us omit the buffalo as too distant, grizzlies or brown bears as too fierce, and mountain goats and sheep as too wild and inaccessible in their retreats among the mountains.

If large game is an attraction, elk, the size of a Kerry cow, can readily be met with on the coast. Keeping to windward of them, they are not difficult to approach, and once within the band, and a shot fired, they become confused, and an easy prey to the hunter. The antlers are five feet or so in width, and weigh upwards of thirty pounds; the meat is excellent. Like all the deer tribe, they are found in winter in valleys near the coast, and in the heat of summer prefer central lakes and hill tops, where they can catch the breeze, and avoid the flies, which would otherwise torment them. Elk.

Deer, being capital swimmers, prefer the groups of small islands to the mainland, and a party of half a dozen hunters will, after an absence of a fortnight or three weeks, occasionally bring back to Victoria as many as thirty or forty, weighing 100 pounds, to 150 pounds each. The Indians snare them in pitfalls, and kill them in traps. But the slaughter is greatest in snow crusted over with ice, strong enough to bear a man, but which the pointed foot of the deer, aided by its spring, too readily penetrates, and the animal is soon overtaken. The venison is seldom so good as that of the parks of England.

The black bear too is easily met with, and is never known to attack till wounded, or in defence of cubs; some are very large. If young, the flesh is excellent, but rather too like pork; but old bear is tough, and the strong smell, which no amount of cooking can neutralise, is far from enticing. They are generally seen where berries are abundant, or among charred stumps of their own colour, and usually stand up to look at an intruder before decamping, presenting a capital mark to fire at. They are difficult to kill, and even when shot through the heart, are active for some time after. Black Bear.

To see one of these animals steeple-chasing over the fallen timber of the

forest, or spring up a tree in its native state, it is difficult to conceive its being similar to that we have seen so tame and spiritless in the menagerie, and conclude that there, though the body was living, "the heart must have been dead."

Puma.

The puma, formidable as it looks, is far from courageous; it will dart up a tree from the smallest dog. To sheep, it is very destructive; once within the fold it seizes them successively by the throat, and rapidly sucks the blood; even a man would be in danger if asleep in the vicinity of one.

Wolves.

The wolves are of different colours, and larger than a Newfoundland dog; they are excessively shy.

To meet with any large game, the sportsman has now, as might be expected, to go several miles from the settlement. His equipment for this purpose should consist of a double rifle with one sight, adjusted for point blank shooting only, with strong charge, up to one hundred yards, a hunting knife, and ammunition, and oil skin and blanket, and an Indian or two, to carry the game and keep the track, retracing, if required, in which department they excel. Dogs, unless remarkably well trained, are better dispensed with.

Duck shooting.

Of feathered game the duck shooting is decidedly the best sport upon the coast. Of these, there are fifteen or more different kinds; the best are found at river deltas, and in swamps, where, as you walk, they continue to rise straight up, often at the sportsman's feet. Away from the settlement a good shot has killed thirty and forty in a day. A good retriever is indispensable, and I may add that there is nothing like an Eley cartridge and large bore for taking them down.

Geese.

Geese of several sorts are also abundant, so much so, that in places I have seen Indian boys stalk, and kill them with bows and arrows. At night too they sometimes steal upon a flock, rush light in hand, and wring the necks of a considerable number. But the greatest numbers of wild fowl are killed in this curious way: The Indians observe the path in air, at the entrance of a river or elsewhere, through which dense flocks of wild fowl pass. While the birds are at rest or feeding, a net is fixed vertically at the proper level, being attached to poles planted some hundreds of feet apart. The birds are suddenly startled, and fly against the net with such rapidity, that they fall stupefied, and are easily clubbed by Indians, who rush upon them from an ambush close by. A punt, gun, and swivel, with which to supply the market, would even as a speculation succeed.

Swans.

Swans are very wary and difficult to bag; they are found sometimes on the lakes, sometimes on salt water. At the head of Alberni Canal, I saw five together.

The coast shooting has this great advantage over the grouse shooting, that the inconvenience of struggling through the bush is avoided.

Dusky Grouse

The dusky grouse is large, two and a half pounds weight, sits all day drumming in a pine top, or cleft in a rock, and at night and morning comes down to feed.

Willow Grouse.

The willow grouse is smaller, of a brown colour, and is generally found in the neighbourhood of water.

Both are scarce near the settlements, being very easily shot, as if missed on rising, they settle in the nearest tree. Of either, even far from the settlement, is difficult to bag more than five to ten brace. A good pointer is indispensable, as they lie very close. Snipe, on the contrary, increase with cultivation; in one field I put up forty or fifty. Besides the above, tall buff cranes, standing four or five feet high, are stalked in the plains, and make good soup.

Snipe.

Cranes,

It is interesting to observe the rapid increase of small birds near the

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settlements, in proportion as birds of prey, such as eagles, hawks, kites, &c., are scared away.

In this way flocks of wild pigeons, doves of two kinds, three varieties of thrush, meadow larks, several kinds of sparrows, wrens, humming birds, tomtits, and a bird that sings at night, evidently prefer quarters near a homestead, to a precarious subsistence in the wilderness.

Total.....	408 54869	2940	188 35011	1791	597 89080	4731	136 52207	2927	71 28437	1131	207 80644	3458	545 107176	8267	259 63449	2922	804 170624	8189
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Table No. 2.—Number, and Crews of Vessels cleared at Ports in the Colony of British Columbia, to all parts of the world, in the year 1870.

Countries to which Departed.	BAITIAN.						FOREIGN.						TOTAL.														
	With Cargoes.			In Ballast.			Total.		With Cargoes.			In Ballast.			Total.		With Cargoes.			In Ballast.			Total.				
	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.					
United Kingdom	3	1980	55	..	..	..	3	1980	55	1	1133	25	..	..	..	1	1133	25	..	..	..	..	4	3113	80		
NewSouthWales	1	740	20	..	..	..	1	740	20	..	..	..	..	..	..	..	..	..	..	..	..	1	740	20			
Victoria	1	687	16	..	..	..	1	687	16	1	823	18	..	..	..	1	823	18	..	..	..	2	1510	34			
Chili	2	739	20	..	..	..	2	739	20	..	..	..	..	..	..	..	..	..	..	..	..	2	739	20			
China	1	345	11	..	..	..	1	345	11	5	2299	56	..	..	..	5	2299	56	..	..	..	6	2644	67			
Hawaiian Islands	7	1285	46	..	..	..	7	1285	46	2	362	15	..	..	..	2	362	15	..	..	..	9	1647	61			
Mexico.....	..	..	..	..	..	..	..	..	..	2	500	20	..	..	..	2	500	20	..	..	..	2	500	20			
Peru	1	650	10	..	..	..	1	650	10	6	3968	100	..	..	..	6	3968	100	..	..	..	7	4618	110			
Tahiti	1	143	8	..	..	..	1	143	8	..	..	..	..	..	..	..	..	..	..	..	..	1	143	8			
United States	6	1024	78	31	5662	327	37	6686	406	66	32659	1429	114	32634	1560	180	66293	29489	72	33683	1507	145	39296	1887	217	72979	3394
Coastwise	155	33683	1729	418	43739	2651	573	77422	4290	..	..	..	11	7154	281	11	7154	281	156	33683	1727	429	50893	2832	584	84576	4561
Total	178	41276	1993	449	49401	2878	627	96677	4871	83	41744	1663	125	40788	1841	208	82532	3504	261	83020	3656	574	90189	4719	835	173209	8375

Table No. 3.—Number, Tonnage, and Crews of Vessels of each Nation entered at Ports in the Colony of British Columbia, in the year 1870.

Nationality of Vessels.	With Cargoes.			In Ballast.			Total.		
	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.
United Kingdom	7	4,076	121	3	2,405	56	10	6,481	177
British Possessions	402	50,893	2,819	185	32,606	1,735	587	83,499	4,554
French	2	1,011	25	2	1,011	25	2	1,011	25
North German	1	428	10	1	428	10	1	428	10
Norwegian	1	681	16	1	681	16	1	681	16
United States	135	51,526	2,311	68	26,996	1,096	203	78,524	3,407
Total	545	107,176	5,267	259	63,448	2,922	804	170,624	8,189

Table No. 4.—Number, Tonnage, and Crews of Vessels of each Nation cleared at Ports in the Colony of British Columbia, in the year 1870.

Nationality of Vessels.	With Cargoes.			In Ballast.			Total.		
	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.
United Kingdom	10	550	145	2	1,484	44	12	7,037	189
British Possessions	168	35,723	1,848	447	49,917	2,834	615	83,640	4,682
French	2	1,011	25	2	1,011	25	2	1,011	25
North German	1	428	10	1	428	10	1	428	10
Norwegian	1	681	15	1	681	15	1	681	15
United States	79	39,624	1,613	125	40,788	1,841	204	80,412	3,454
Total	261	83,020	3,656	574	90,189	4,719	835	173,209	8,375

Total.	
Tons.	Crews.
6481	177
83,499	4,554
1,011	25
428	10
681	16
78,524	3,407
170,624	8,189

Total.	
Tons.	Crews.
7,037	189
83,640	4,682
1,011	25
428	10
681	15
80,412	3,464
73,209	8,375

Table No. 5.—Total Number, Tonnage, and Crews of Vessels, entered at each Port in the Colony of British Columbia, in the year 1870.

Names of Ports.	BRITISH.						FOREIGN.						TOTAL.														
	With Cargoes.			In Ballast.			Total.			With Cargoes.			In Ballast.			Total.											
	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.									
Victoria	323	19477	1826	184	33154	1737	597	32631	3063	127	47740	2206	33	9808	433	160	57548	2639	480	67217	3832	217	42962	2170	607	110179	5762
N. Westminister	85	34604	1592	2	102	14	87	34706	1606	...	...	...	1	16	2	85	34604	1592	3	118	16	88	34722	1608	88	34722	1608
Barrard Inlet	1	888	22	2	1755	40	3	2643	62	4	2018	50	9	5296	126	13	7314	176	5	2906	72	11	7051	116	16	9987	238
Nanaimo	...	...	...	...	...	...	...	...	...	5	2449	71	28	13317	570	33	15766	641	5	3449	71	28	13317	570	33	15766	641
Total	409	54969	2940	188	35011	1791	597	89980	4721	136	52207	2327	71	28437	1131	207	80644	3458	545	107176	5207	259	65348	2622	804	170624	8169

Table No. 6.—Total Number, Tonnage, and Crews of Vessels cleared at each Port in the Colony of British Columbia, in the year 1870.

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APPENDIX Y.

GENERAL EXPORTS from the Colony of British Columbia, in the year 1870.

Articles and Countries to which Exported.	QUANTITIES.				VALUE IN CURRENCY.		
	Produce and Manufactures of the Colony.		British, and other Colonial Produce and Manufactures.	Total.	Produce and Manufactures of the Colony.	British, Foreign, and other Colonial Produce and Manufactures.	Total.
	In British Vessels.	In Foreign Vessels.					
United Kingdom	25 brls.	25 brls.		25 brls.	140	\$	\$ 140
Fish Oil	349 casks.	349 casks.		349 casks.	12,500		12,500
Furs	386 pkgs.	386 pkgs.		386 pkgs.	130,000		130,000
Iron						986	986
Lumber—Rough	81,427 ft.	109,376 ft.	Not given.	190,803 ft.	1,950		1,950
Spars	408 No.	372 No.		780 No.	18,252		18,252
Miscellaneous			Not given.		2,729	347	3,076
Wool	76 bales.	76 bales.		76 bales.			2,729
Total					155,571	1,333	156,904
New South Wales	356,517 ft.	356,517 ft.		356,517 ft.	4,552		4,552
"	24,307 No.	24,307 No.		24,307 ft.	267		267
"	88,000	88 M.		88 M.	264		264
"			1 pkg.	1 pkg.		50	50
Total					5,083	50	5,133

Lumber—Rough..... 963,443 ft. 2 No.
 Spars..... 641,597 ft. 13 No.
 Miscellaneous..... 1,605,040 ft. 1,605,040 ft.

[illegible]

APPENDIX Y.—Continued.

General Exports from the Colony of British Columbia, in the year 1870.—Continued.

Articles and Countries to which Exported.	QUANTITIES.				VALUE IN CURRENCY.		
	Produce and Manufactures of the Colony.		British, Foreign and other Colonial Produce and Manufactures.	Total.	Produce and Manufactures of the Colony.	British, Foreign and other Colonial Produce and Manufactures.	Total.
	In British Vessels.	In Foreign Vessels.					
Lumber—Rough							
Dressed							
Peru.....		2,150,222 ft.		2,150,222 ft.	23,566		23,566
".....		1,116,327 ft.		1,116,327 ft.	20,649		20,649
Total.....					44,215		44,215
Lumber—Rough							
Dressed							
Shingles.....	117,007 ft.	33,634 ft.	50 M.	117,007 ft.	819		819
".....	33,634 ft.	50 M.		33,634 ft.	538		538
".....	50 M.			50 M.	152		152
Total.....					1,509		1,509
United States.....	2 hhds.	3 hhds.		259 pkgs.	60	2,053	2,713
Ale and Porter						216	216
Bottles.....	17 M.	17 M.		17 M.	125		125
Bricks.....	Not given.				1,776		1,776
Castings.....						280	280
Cigars.....	16,114 tons.	16,114 tons.	4 M.	16,114 tons.	96,687		96,687
Coal.....	37 brls.	37 brls.		37 brls.	373		373
Cranberries.....	Not given.			53 pkgs.		7,357	7,357
Dry Goods.....					908		908
Fish.....							908

APPENDIX Z.

EXTRACT FROM BLUE-BOOK, 1870.

RETURN of the Population of British Columbia; also showing the Births, Deaths, and Marriages, for the year 1870.

County, District, or Parish.	WHITE.		COLORED.		TOTAL.		CHINESE.		PERSONS EMPLOYED IN				Births.	Deaths.	Marriages.
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Agriculture.	Manufactures.	Trading.	Mining.			
Cariboo	835	85	29	3	864	88	670	15	125	17	87	1,450	6	3	7
Comox	74	28			102	28			54		20		3		
Cowichan	134	87			221	87									
Esquimalt Town	74	58	2		132	58	7		3		42				
Esquimalt and Metchoan	147	80	9	2	236	82			80		12				
Hope, Yale, and Lytton	640	93	20	3	756	96	305	6	480	30	239		31	2	6
Kootenay	103	5	2		108	5	139		6		20	222			2
Lake and Highland	67	42	3	3	112	45			119						
Lillooet	200	35	3		235	35	80			8	90	95	2	1	2
Nanaimo	395	266	44	48	693	254	35	1	30		22	161	20	5	4
New Westminster	891	401	34	3	1,295	404	26	1	286	198	38		43	13	9
North and South Tannah	114	70	19	10	193	80			112		2				
Sooke	24	15			39	15			23		1				
Victoria City	1,645	1,197	128	89	2,950	1,286	181	30	196	150	669	70	108	17	11
Victoria District	439	362	4	4	805	396	52		214		101				
Total	5,762	2,794	297	165	6,079	2,959	1,495	53	1,827	403	1,803	2,349	213	41	1

APPENDIX AA.

MEMORANDUM BY THE HON. J. W. TRUTCH,

Commissioner of Land and Works, in reply to a letter, treating on the condition of the Indians in Vancouver Island, addressed to the Secretary of the Aborigines Protection Society, by Mr. William S. Sebright Green.

Mr. Green's letter contains a series of allegations against the Government, most of which are so entirely inconsistent with facts, and in the remainder of which the truth is so strangely distorted, that his statements in this matter, and the deductions drawn by him therefrom, urgently require to be met with the most distinct and positive refutation.

It is not true, as he avers, that in this Colony we have "no Indian Policy whatever," that "there are no Indian Agents," and that the only friends the Indians have in the Colony, are the Missionaries.

On the contrary, for the past ten years at least, during which I have resided in this Colony, the Government appears to me to have striven to the extent of its power, to protect and befriend the native race; and its declared policy has been that the Aborigines should in all material respects be on the same footing in the eye of the law as people of European descent, and that they should be encouraged to live amongst the white settlers in the country, and so, by their example, be induced to adopt habits of civilization.

In the more settled districts, the Indians do now reside mostly in the settlements, working for the white settlers, eating similar food, and wearing similar clothing, and having, to a great extent, relinquished their former wild primitive mode of life.

In these respects the native race has undoubtedly derived very material benefit from their contact with white people, whilst it is unhappily equally certain that it has thence contracted a large share of the vices, and attendant disease, which have ever been inevitably entailed by the European races on the Indians of this continent, amongst whom they have settled.

This policy towards the Indians has been consistently carried out, so far as I am aware, by successive Governors, and under it the Indians have assuredly, as Mr. Green states, "been made amenable to English laws," but it is somewhat more than exaggeration to write, as he has done, that the Indians have been suffered to shoot and kill one another within rifle shot of the city, without interference.

It may be, and I believe is a fact, that during the past ten years there have been instances of Indians having shot and killed one another in the outskirts of Victoria, without having been apprehended, but they certainly have not been suffered to do so.

On the contrary, had they been detected in the commission of such crimes, they would most assuredly have been tried and punished according to English law. In fact, Indians have been tried for this very crime in Victoria, and hanged.

At the trial of all such offenders counsel have been assigned by the Judge for their defence, unless specially provided by themselves or their friends, precisely as though they had been white men.

Reply to Mr. Green's letter.

Policy of the Government in respect of Indians.

Indians prosecuted when on

11	17	108	70	608	1	1
1	41	213	2,348	1,303	403	1,827
123	196	150	214	30	53	1,495
181	52	386	443	15	2,939	6,079
24	89	1,286	1,173	123	165	297
15	4	392	1,197	15	2,794	5,782
24	439	1,615	1,439	24	5,782	
Victoria City						
Victoria District						
Total						

For it must be pointed out, that Mr. Green is again positively incorrect in stating, as he has done, that the defence of Indians "is a mere matter of chance." There is no more of the element of chance in this respect as regards an Indian on his trial, than would affect a white man similarly circumstanced.

**Duties of
Magistrates.**

Money must of course always have its effect in securing the services of able counsel, and in other ways, when a man is under trial for any offence against the law; but in this respect a poor Indian is no worse off than a poor white man; indeed, he is probably, not so friendless, as the Judges in this Colony have always made it their special care that Indians on trial should be at least at no disadvantage on account of their being Indians. The Magistrates too, throughout the Colony, are the specially constituted protectors of the Indians against injustice. They are in fact "Indian Agents" in all but the name; and I am confident that they have so performed this well understood branch of their duty, that as full a measure of protection and general advantage has been bestowed on the Indians, through their agency, by Government, out of the pecuniary means at its disposal for this purpose, as could have been afforded to them through the medium of a special Indian Department. The Indians have in fact been held to be the special wards of the Crown, and in the exercise of this guardianship Government has, in all cases where it has been considered desirable for the interests of the Indians, set apart such portions of the crown lands as were deemed proportionate to, and amply sufficient for the requirements of each tribe; and these Indian reserves are held by the Government, in trust, for the exclusive use and benefit of the Indians resident thereon.

Titles to land.

But the title of the Indians in the fee of the public lands, or any portion thereof, has never been acknowledged by Government, but, on the contrary, is distinctly denied.

In no case has any special agreement been made with any of the tribes of the mainland, for the extinction of their claims of possession.

But these claims have been held to have been fully satisfied by securing to each tribe, as the progress of the settlement of the country seemed to require, the use of sufficient tracts of land for their wants, for agricultural and pastoral purposes.

**Agreements
with Indians.**

In 1850 and 1851, shortly after the first settlement of Victoria, by the Hudson's Bay Company, at that time grantees from the Crown of the whole of Vancouver Island, with full executive powers of Government, their agent, Governor Douglas, made agreements with the various families of Indians then occupying the south-eastern portion of the Island for the relinquishment of their possessory claims in the district of country around Fort Victoria, in consideration of certain blankets and other goods presented to them. But these presents were, as I understand, made for the purpose of securing friendly relations between these Indians, and the settlement of Victoria, then in its infancy, and certainly not in acknowledgement of any general title of the Indians to the lands they occupy.

**Cowichan
settlement.**

In reference to the Cowichan settlement, it appears from the records, for I cannot speak of this matter from personal knowledge, as I had no official connection with Vancouver Island until the year before last, that portions of the Cowichan Valley were surveyed by Government, and sold in 1859. The settlement dates therefore from that year, although the unoccupied lands in this district were not thrown open for pre-emption until 1862. When these lands were surveyed certain sections, containing in all 4,635 acres, were set apart as reserves for the use of the Cowichan Indians, and are now held in trust by Government, for that purpose, with the exception of about 500 acres, which have been since withdrawn from this reservation with the consent, as appears from the recorded correspondence in this office, of the Indians interested therein.

I can find no record of any promise having been made to these Indians that they should be paid for the lands in the Cowichan Valley, which they may have laid claim to, nor can I learn that any such promise has ever been made, but it is probable that the Cowichan Indians, when the white people began to settle amongst them, may have expected, and considered themselves entitled to receive for the lands which they held to be theirs, similar donations to those which had been presented to their neighbours, the Saanich Indians years previously, as before mentioned, on their relinquishing their claims to the lands around their villages. It is further very likely that it was Governor Douglas' intention that such gratuities should be bestowed on this tribe, although no direct promise to that effect had been made, and, in effect, presents of agricultural implements and tools were authorized to be made to them through this Department last year, although no demands for payment for their lands had to my knowledge been made by these Indians from Government.

No promise of compensation on record.

It is unfortunately only too true that the law forbidding the sale of liquor to Indians, although efficacious in the country districts, especially on the mainland, is virtually inoperative in Victoria and its neighbourhood, as its provisions, strict as they are, are evaded by an organized system between white men, who make the vile liquor for this trade, and the Indian traders, who purchase it in quantities to be retailed to their Indian customers on the reserves. Government has endeavoured to suppress this most baneful traffic, but the profits are so considerable, that those engaged in it in a wholesale way cannot be tempted to become informers, and it is only occasionally that even the minor agents are apprehended and punished, whilst the principal offenders, some of whom it is hinted are "most respectable" persons, cannot be traced.

Sale of liquor.

It is easy for Mr. Green to say "he could point out at least a dozen men known to be engaged in this nefarious traffic, but it would no doubt have been difficult for him to have proved this which he asserts as a known fact, otherwise he would surely have evidenced his earnestness in the cause of those on whose behalf he writes, by giving such information to the police as might have led to the punishment of these offenders.

Prostitution is another acknowledged evil prevailing, to almost an unlimited extent among the Indian women, in the neighbourhood of Victoria; but the prevention of this vice is at least as difficult to effect here as in more civilized communities, and the only direct step towards this result that appears open to the Government to take, would be to remove the entire Indian population to a distance of some miles from Victoria; a course against which both the Indians themselves, and the majority of the white inhabitants would most strenuously protest for a variety of reasons. But this course must be adopted before any measures for the improvement, in this respect, of the moral and social condition of the Indian population can be carried into effect with any hope of success.

Prostitution.

In direct refutation of the charges of utter neglect and inhuman treatment of the Indians at Victoria, during the prevalence of small pox in 1868, which Mr. Green makes against the Government, it will be sufficient for me to recount what came under my own observation in reference to this subject.

Treatment of Indians suffering from small pox.

Some time during the autumn of that year, whilst this disease was at its height, Mr. Young, at that time Acting Colonial Secretary, called my attention to a leading article in that morning's "British Colonist," of which Mr. Green was then Editor, which contained most exaggerated representations of the horrible condition of the Indians on the reserve of Victoria, under this visitation, and charges against Government of having utterly failed to take any steps to prevent the spread of the fell contagion, or to alleviate

the sufferings of those attacked by it, or even to provide for the burial of its victims; statements, in fact, of a character and tenor identical with the charges which are so broadly made in the letter now under reference. Mr. Young informed me that although he knew these statements had no foundation in fact, he was then going to investigate the matter thoroughly, and would be glad if I would accompany him. Accordingly, Mr. Young, Mr. Pemberton, Police Magistrate of Victoria, and myself, went at once to the Indian reserve, and spent some hours in inspecting the Indians' houses, hospital, graveyard, &c., and in inquiring into the arrangements that had been made by the Police Magistrate, with the assistance of the Rev. Mr. Owens, at that time residing on the Reserve, in charge of the Church of England Indian Mission thereon, and who also joined in our inspection. We found but few, only three, cases of small pox then existing on the reserve, and these patients were in care of an attendant paid by Government, in a building erected by Government specially as a small pox hospital, and under medical treatment, also provided by Government. Those who had died on the reserve, and in the town of Victoria, had been decently buried, to the number of about fifty, that being the number of newly made graves.

We could not verify whether these represented all the deaths up to that time from small-pox, among the Indians, but we certainly saw no dead bodies of Indians left unburied on the reserve, or elsewhere in the neighbourhood of the town, nor did we learn that even one such dead body had been found "on the rocks outside the harbor," where Mr. Green says "hundreds of bodies were left unburied." The shanties which had been occupied by the small-pox patients, together with their clothes and bedding, had been carefully burnt, and from all that we saw on the reserve, and from the information furnished to us by the Rev. Mr. Owens, Mr. Pemberton, and others, we were satisfied that all practicable measures were being taken for the proper care of the Indian sufferers from small pox, and for the prevention of the spread of the disease.

Statements of
Dr. Davie.

I will only add in confirmation of the correctness of the impressions then formed to the above effect, that this subject was brought under discussion during the last session of the Legislative Council, by the late Dr. Davie, then Member for Victoria District, who speaking of his own knowledge, as he had been unremitting in his professional services to the Indians, as well as to white persons afflicted with small-pox, and who, being one of the medical officers appointed by Government for this purpose, had frequently visited this reserve on such charitable errands, bore testimony to the zeal and unshrinking disregard of the danger of contagion, which has been exhibited by those to whom the duty of taking care of the Indians during the late visitation had been entrusted, and especially by Sergeant Bowden, the Inspector of Police, whose services in this respect he solicited the Government to acknowledge by some complimentary gratuity; and the rest of the Council having joined in this representation, after a discussion, in which the treatment of the Indians during the prevalence of the small-pox was fully debated and approved of—the Governor was pleased to comply with their request.

Deaths from
small pox.

I have since ascertained that the deaths from small-pox among the Indians in 1868, as reported by the Police Magistrate, amounted, including children, to eighty-eight (88), and that about \$2,000 were expended by Government, in the care of, and medical attendance on these sufferers, and in the burial of the dead.

Unhappily indeed, the disease was fatal enough in reality to the white as well as the Indian population, to need no such imaginative exaggeration as Mr. Green, from motives which I will not undertake to determine, although they are, I believe, sufficiently apparent in the conclusion of his letter, has allowed his pen to picture.

Most of the Indians from the outlying districts along the coast fled from the city in their canoes, by the advice of the authorities, but under no compulsion, at the first outbreak of the contagion, but unfortunately not in time to escape its ravages, for they carried its infection with them, and those attacked with the dreaded disease on their way homeward, were left by their friends on the shore to perish untended.

Many Indians died in this way, in addition to those whose deaths at Victoria were registered, but I am unable to perceive what measures it was in the power of the Government to take, other than those which were adopted, for the protection and succour of the white and Indian population alike.

I will only remark further on the general subject of the condition of the Indians in this Colony, that it is unhesitatingly acknowledged to be the peculiar responsibility of Government to use every endeavour to promote the civilization, education, and ultimate christianization of the native races within our territory, and that any practical scheme for advancing this object, which it would be within the scope of the pecuniary ability of the Colony to carry into effect, would be adopted with alacrity. At present this good work is almost exclusively in the hands of Missionaries of various denominations, and much has been effected by their labors in those stations where the Indians under their teaching are not subject to those temptations which seem almost inevitably to overcome them when brought into close contact with the white population in the towns. But Government, although giving cordially to these Missions every countenance and moral support in its power, has found it impracticable to grant them any pecuniary aid, from the consideration that by so doing, it would be involved in the invidious position of appearing to give a special state aid to particular religious bodies.

(Signed)

JOSEPH W. TRUTCH.

13th January, 1870.

APPENDIX BB.

LETTER FROM HIS LORDSHIP THE BISHOP OF MILETOPOLIS
AND VICAR APOSTOLIC OF BRITISH COLUMBIA.

TO THE HONORABLE H. L. LANGEVIN,
Minister of Public Works, Ottawa.

SIR,—Your visit to this distant land has shown us what a lively interest the Federal Government takes in the Province of British Columbia, which, though the last annexed to the Dominion of Canada, will not, we hope, be the least productive of good results.

You came to this Province to fulfil an honorable and important mission, and with that object in view you were pleased to see for yourself, and to examine everything attentively in order to acquire a better knowledge of individuals and to obtain correct ideas as to the country.

I believe that I shall meet your wishes and perform a duty by submitting to you my humble opinion as to the most advantageous system to be adopted by the Federal Government in its relations with the Indians in this Province; I shall then address you on the subject of certain projects, which have doubtless not failed to attract the attention of the Federal Government.

Opinions
divided as to
treatment of
Indians.

With regard to the system which might be adopted by the Government in connection with the Aborigines, opinion is divided; some persons speak of compelling the Indians of this Province, to collect on certain general reserves which would be set apart for them *ad hoc*; if I do not mistake, that is the system which the Americans have adopted in their dealings with the Indians who inhabit the territory bordering upon this Province.

Disadvantages
of American
system.

I am astonished, Sir, that those who know, or who have been in a position to know the deplorable consequences of such a system, can be desirous of seeing it adopted and carried into operation in British Columbia. It appears to me that experience has sufficiently proved: 1st. That if it is difficult to compel wandering tribes, who live in tents, to leave the land of their ancestors, to reside upon distant reserves, it is almost impossible to induce Indians who live in permanent villages to consent to leave their houses, their fields and their burying places to which they are as attached as to life itself. 2nd. That to endeavour to compel these Indians, against their will, to leave the land of their birth would be, at the least, imprudent and impolitic; such a system might entail misfortune upon the settlers as well upon the Indians; who can say that the latter, considering themselves molested, would not seek to avenge themselves, as has already occurred in the case of the Americans? It is true that the Indians would inevitably ultimately succumb, they being the weaker, but it is no less true that a war with them would entail immense expenditure upon the Federal Government, and would retard for years the progress of this Province.

Cost of the
American
system.

It is an historical fact that the system adopted by the Americans in their relations with the Indians has cost them millions of dollars, and has been productive of barely a single good result. Who does not know that after the frightful wars which cost so much blood and so much money, the Americans were compelled, at least in the adjoining territory, to conform to the wishes of the Indians and leave them upon the land which they had demanded? I take pleasure in believing, Sir, that the Federal Government would be un-

willing to imitate our Yankee neighbors and to take as their rule the law of the strongest, a law which in our day is but too much in vogue; I am satisfied that it will prefer to adopt a system which will prove more favorable, less costly and less productive of inconvenience, and which will at the same time have the advantage of securing for the Government the confidence of the Indians and in that way ensuring for it powerful auxiliaries in case of war. To attain this most desirable end, it would be sufficient, it appears to me:—

1st. That the Federal Government should set apart in each Indian village, a reserve of land proportionate to the number of the inhabitants. 2nd. That a treaty should be made with the Indians for the extinction at the earliest possible period of their titles to their lands. 3rd. That the sum of money to be allowed to the Indians by the Government, should be applied to supplying them, annually, either with agricultural implements and others such as axes, large saws, planes, &c., or with clothing and blankets as they may require and select.

Suggestions for the treatment of the Indians.

If fears are entertained that certain Indians who still follow the old customs of savage life, would abuse such gifts, we are in a position to assert that a large majority of those who are under our influence, far from making a bad use of them, would derive the greatest advantages from them. The progress which a large number of them have already made in civilization, left as they were, so to speak, to themselves, proves what might be expected from them if the Government came to their assistance and took their interests to heart.

It is the intention of the Federal Government, I believe, to appoint agents whose special duty it will be to attend to the interests of the Aborigines. As an immense majority of the Christian Indians profess the Catholic faith, would it not be expedient that the local superintendent with whom they will have to communicate, should be a Catholic, a similar advantage being granted to the Protestants? The Federal Government will, I trust, be pleased to take into consideration the wish expressed by about 20,000 Indians, who are either Catholics or uninstructed, to have a Catholic superintendent with whom they may treat respecting their affairs. You will readily observe, Sir, that by complying with their earnest desire, a way will be found for acquiring their entire confidence.

Appointment of Agents.

It is also, without doubt, the intention of the Federal Government to take some steps for the education of the Aborigines.

Education of Indians.

On this subject I may here be allowed to remark that, for the present, day-schools for the Indians would entail great expense without producing satisfactory results. The fact is that the Indians have been in contact with the whites for too short a time to enable them to understand or appreciate the advantages of purely elementary education; besides, being compelled to go upon hunting and fishing expeditions to provide food and sustenance for their families, they have not yet entirely abandoned their slightly nomadic way of life, so that it is difficult, not to say impossible, to exact from each child that regular attendance at a day-school which is necessary to enable him to derive real benefit from it; the parents also are not disposed to send their children to the schools and the children are too fond of liberty not to prefer accompanying their parents on their hunting and fishing expeditions to attending to receive instruction. The American Government have established day-schools for the Indians in the adjacent territory, and not one of them has proved a success. Experience has shown that the schools which are best adapted to the wants of the Indians and to their way of life, are industrial and agricultural schools, where the children are lodged, boarded and clothed, and at which they spend several years in acquiring regular habits of order and discipline and a taste and liking for work, while they receive elementary instruction at the same time. It is a school or establishment of this description that

Day Schools.

Industrial and Agricultural Schools.

we have founded at St. Marie, in the mission district of St. Charles. This mission district includes the civil district of New Westminster, a part of the civil district of Yale, and a part of that of Lillouet. This establishment, which receives Indian children from the above mentioned civil districts is divided into two departments, one of which, for boys, is under the management of two Brothers; the other, for girls, is under the management of two Sisters of St. Anne. Very satisfactory results have been obtained, but our means being very much restricted, we are able to receive but a limited number of pupils. If the Federal Government would grant us assistance, as we trust it will, and as we humbly request, we should be able to receive a larger number of children. It is also our intention, if the Government can extend aid to us, to found an establishment similar to that at St. Marie, in each of our mission districts, that is to say, in the district of the Immaculate Conception, Okanagan Lake, which comprises the civil districts of Okanagan and Kootenay, and a part of that of Yale-Lytton; in the district of St. Joseph, William's Lake, which comprises a part of the civil district of Lillouet and that of Cariboo; in the district of N. D. de Bonne Esperance (Stuart's Lake) which comprises the numerous civil districts of the north-east; and in the district of St. Michael which comprises the Kakonals (Fort Rupert District).

I have the honor to be, Sir,

Your very humble and obedient servant,

A. LOUIS, O. M. I.

Bishop of Miletopolis, Vicar Apostolic of British Columbia.

New Westminster, 29th September, 1871.

APPENDIX CC.

A DICTIONARY OF THE CHINOOK JARGON, OR INDIAN
TRADE LANGUAGE OF THE NORTH PACIFIC COAST.

Published by T. N. HIBBEN AND Co., Victoria, B.C.

PART I.

Chinook—English.

A.

Ah-ha, *adv.* Yes.

Ahn-kut te, or Ahn-kot-tie. Formerly; before now. With the accent prolonged on the first syllable—A long time ago. Ex. Ahnkutte lakit sun, four days ago; Tenas ahnkutte, a little while since.

Al-ah. Expression of surprise. Ex. Alah mika chahko! Ah! you've come!

Al-kie. Presently; in a little while; hold on; not so fast.

Al-ta. Now; at the present time.

A-mo-te. The strawberry.

An-ah, *interj.* An exclamation denoting pain, displeasure or depreciation. Ex. Anah nawitka mika halo shem—Ah! indeed you are without shame.Ats, *n.* A sister younger than the speaker.A-yah-whul, *v.* To lend; borrow.

B.

Be-be. A word used towards children; a kiss; to kiss.

Bed, *n.* A bed.

Bit or Mit. A dime.

Bloom, *n.* A broom. Mamook bloom, to sweep.

Boat. A boat, as distinguished from a canoe.

Bos-ton, *n. adj.* An American. Boston illahie, the United States.

Bur-dash. An hermaphrodite.

C.

Cal-li-peen, *n.* A rifle.Ca-nim, *n.* A canoe. Canim stick, the cedar or wood from which canoes are usually made.

Ca-po. A coat.

Chah-ko. To come; to become. Ex. Kansih mika chaco? when did you come? Chahko kloshe, to get well.

Chak-chak. The bald eagle.

Chee. Lately; just now; new. Chee nika ko, I have just arrived. Hyas chee, entirely new.

Chet-lo or Jet-lo, *n.* An oyster.Chik-a-min, *n. adj.* Iron; metal; metallic. T'kope chikamin, silver; Pil chikamin, gold or copper. Chikamin lope, wire; a chain.

Chik-chik. A wagon or cart.

- Chil-chil. Buttons.
 Chitah, *n.* A grandmother.
 Chope, *n.* A grandfather.
 Cho-tub, *n.* A flea.
 Chuck, *n.* Water; a river or stream. Salt chuck, the sea; Skookum chuck, a rapid; Solleks chuck, a rough sea; Chuck chahko or kalipi, the tide rises or falls; Saghilli and keekwillie chuck, high and low tide.
 Chuk-kin. To kick.
 Close. See Klose.
 Cly, *v.* To cry.
 Cole, *adj.* Cold. Cole iliahie, winter; leht cole, a year; Cole sick waum sick, the fever and ague.
 Comb. A comb. Mamook comb, to comb; Mamook comb iliahie, to harrow.
 Cooley. To run. Cooley kiutan, a race-horse; Yahka hyas kumtuks cooley, he can, *i.e.* knows how to run well.
 Coop-coop, *n.* Shell money. See Hykwa.
 Co-sho, *n.* A hog; pork. Siwaash cosho, a seal.
 Cultus, *adj.* Worthless; good-for-nothing; without purpose. Ex. Cultus man, a worthless fellow; Cultus potlatch, a present or free gift; Cultus heehce, a jest, merely laughing; Cultus nannitah, to look around; Cultus mitlite, to sit idle; Cultus klatawa, to stroll. *Ques.* What do you want? *Ans.* Cultus—*i.e.* nothing.

D.

- De-late. Straight; direct. Ex. Klatawa delate, go straight; Delate wauwau, tell the truth.
 Di-aub. The devil.
 D'ly. Dry. Chako dely, to become dry; Mamook dely, to dry.
 Doe-tin. A doctor.
 Dol-la. A dollar; money. Chikamin dolla, silver; Pil dolla, gold; Dolla singhost, spectacles.

E.

- Eh-kah-nam, *n.* A tale or story.
 Eh-ko-li, *n.* A whale.
 Ee-na, *n.* A beaver. Eena stick (literally beaver wood), the willow.
 Ee-na-poo or In-a-poo. A louse. Sopen inapoo, a flea.
 Ek-keh. A brother-in-law.
 E-la-han. Aid; assistance; alms. Mamook elann, to help.
 E-lip. First; before; Elip lolo chuck, in the first place carry water; Elip kloshe, best; Elip tillikum, the first people.
 E-li-te. A slave.
 E-salt'h. Indian corn or maize.

G.

- Get-up. To get up; rise.
 Glease. Grease. Hyiu glease, very fat; Too-toosh glease, butter.

H.

- Hah-laki. Wide; open. Ex. Mamook hahlaki la pote, open the door.
 Haht-haht, *n.* The mallard duck.

Hak-at-shum, *n.* A handkerchief.

Halo. None; absent. *Q.* Halo salmon nika? have you no fish? *A.* Halo, none. *Q.* Kah nika papa? where is your father? *A.* Halo, he is out. Halo wind, breathless; dead. Halo glease, lean. Halo iktas, poor; destitute.

Haul, *v.* To haul or pull.

Hee-hee, *n.* Laughter; amusement. Cultus heehee, fun; Mamook heehee, to amuse; Heehee house, any place of amusement, as a tavern, bowling alley, &c.

Hoh-hoh, *n., v.* To cough.

Hool-Hool, *n.* A mouse. Hyas hoolhool, a rat.

House, *n.* A house. Mahkook house, a store.

Howh. Turn to; hurry.

How-kwutl. Inability. *Ex.* Howkwutl nika klatawa? how could I go?

Hul-lel, *v.n.* To shake.

Hul-o-i-ma. Other; another; different. *Ex.* Huloima tillikum, a different tribe or people; Hyas huloima, very different.

Humm, *n., v.* A stink or smell; to stink. Humm opootsh, a skunk.

Hunl-kih. Curled or curly; knotted; crooked.

Huy-huy, *n. v.* To barter or trade. *Ex.* Huyhuy la sile, change the saddle; Huyhuy tumtum, to change one's mind.

Hwah. Surprise or admiration; also earnestness.

Hy-ak. Swift, fast, quickly, hurry, make haste.

Hy-as. Large, great, very. Hyas tyhee, a great chief; Hyas mahcook, a great price; dear; Hyas ahnkutte, a long time ago; Hyas closhe, very good.

Hy-iu. Much, many, plenty, enough. Hyiu tillicum, a crowd; many people; Hyiu muckamuck, plenty to eat; Tenas hyiu, some; few; Wake hyiu, not many or not much.

Hy-kwa. The shell money of the Pacific coast.

I.

Ik-kik. A fish-hook.

Ik-poo-ie. To shut. Ikpooie la pote, shut the door; Mamook ikpooie, to surround; Ikpooie kwillan, deaf.

Ikt. One, once. Ikt man, a man: Ikt nika klatawa copa yahka house, I have been once to his house.

Ikt-tah. What. Iktah okook, what is that? Iktah nika tikegh, what do you want? Iktah, Well, what now?

Ikt-tahs. Goods, merchandise. Hyiu iktahs, a great many goods or merchandise.

Il-la-hie, *n.* The ground; the earth; dirt. Tipso illahie, prairie; Saghalie illahie, mountains or high land; heaven. Hyiu illahie kopa, dirty (literally, much dirt upon.)

In-a-poo. A louse. Sopen inapoo, a flea.

In-a-ti. Across; opposite to; on the other side of. Inati chuck, on the other side of the river; Klatawa inati, to cross over.

Ip-soot. To hide one's self, or anything; to keep secret. Ipsoot klatawa, to steal off; Ipsoot wau-wau, to whisper.

Is-ick, *n.* A paddle. Mamook isick, to paddle.

Is-ick stick, *n.* The ash. Literally, paddle wood.

Is-kum, *v.* To take; take hold of; hold; get. Iskum okook lope, hold on to that rope; Mika na iskum? did you get it?

It-lan, *n.* A fathom.

It-lo-kum, *n.* The game of "hand." Mamook itlokum, to gamble.

Itl-wil-lie, *n.* The flesh; meat of any animal. Konaway nika itwillie sick;
all my flesh is sore.
Its-woot. A black bear. Itswoot paseesie, thick dark cloth or blankets.

K.

Kah. Where, whither, whence. Kah mika mitlite? where do you live?
Konaway kah, everywhere; Kahkah, here and there.

Kah-kah. A crow.

Kah-kwa, *adv.* Like; similar to; equal with. Ex. Kahkwa nika tumtum,
so I think; kahkwa hyas nika, as large as I; kahkwa spose, as if;
kloshe kahkwa, that is right; good so.

Kah-na-way, *n.* Acorns. Kahnaway stick, the oak.

Kahp-ho. Brother, sister, or cousin.

Kah-ta. How; why. Kahta nika mamook okook? why do you do that?
kalta mika chahko? how did you come? kahta mika? what is the
matter with you? pe kahta? and why so?

Kal-ak-a-lah-ma, *n.* A goose.

Kal-a-kwah-tie, *n.* The inner bark of the cedar; the petticoat or skirt
formerly worn by women, and often made of strands of bark. Kala-
kwahtie stick, the cedar tree.

Kal-li-tan, *n.* An arrow; shot; a bullet. Kalitan le sac, a quiver; a shot
pouch.

Kal-lak-a-la. A bird.

Ka-mas. A bulbous root used for food.

Kam-ooks, *n.* A dog. Kahkwa kamooks, like a dog; beastly.

Ka-mo-suk, *n.* Beads. Tye kamosuk (chief beads), the large blue glass
beads.

Kap-swal-la. To steal. Kapswalla klatawa, to steal away; kapswalla
mamook, to do secretly.

Kat-suk. The middle or centre of anything.

Kau-py. Coffee.

Ka-wak, *v.* To fly.

Kaw-ka-wak. Yellow or pale green.

Kee-kwil-lie. Low; below; under; beneath; down. Mamook keekwillie,
to lower. Mitlite keekwillie, to set down; put under.

Keep-wot. A needle; the sting of an insect; a thorn. Shoes keepwot,
an awl.

Keh-loke, *n.* A swan.

Keh-see. An apron.

Keh-wa. Because.

Kel-a-pi, *v.* To turn; return; overturn; upset. Kelapi canim, to upset
a canoe; hyak kelapi, come back quickly; kelapi kopa house, go back
to the house; mamook kelapi, to bring, send or carry back; kelapi
tumtum, to charge one's mind.

Kes-chi. Notwithstanding, although.

Ket-ling. A kettle, can, basin, &c.

Kil-it-sut, *n.* Flint, a bottle, glass.

Kim-tah. Behind, after, afterwards, last, since. Klatawa kintah, go be-
hind; nika elip pe yahka kintah, I first and he afterwards; okook
kintah, the one behind; kintah nika nannitsh mika, since I saw you.

King George. English. King George man, an Englishman.

Ki-nootl. Tobacco.

Kish-kish, *v.* To drive, as cattle or horses.

Kiu-a-tan, *n.* A horse. Stone kiutan, a stallion.

Ki-wa. Crooked.

Ki-yah, *n.* Entrails.

Klah, *adj.* Free or clear from; in sight. Ex. Chee yahka klah, now he is in sight. Klatawa klah, to escape. Chahko klah (of seed) to come up; (of the woods) to open out; (of the weather) to clear up; mamook klah, to uncover.

Klah-hanie. Out of doors, out, without. Ex. Mamook klaghanie okook, put that out; klatawa klaghanie, to go out.

Kla-how-ya. How do you do? good-bye. Ex. Klahowya sikhs, good-bye, friend.

Kla-how-yum. Poor, miserable, wretched, compassion. Hyas klahowyum nika, I am very poor; mamook klahowyum, to take pity on; give alms; be generous.

Klah-wa, *adv.* Slow, slowly. Klatawa klahwa, go slowly.

Klak, *adv.* Off. Ex. Mamook klak stone kiutan, to castrate a horse; mamook klak l'assiette, take off the plates; klak kopa wayhut, get out of the road.

Klaks-ta. Who. Klaksta mamook okook? who made or did that? halo klaksta, no one.

Klak-wun or Kleh-kwan. To wipe or lick. Klakwun l'assiette, to wipe a plate.

Klale or T'klale. Black, or dark blue or green.

Klap, *v.* To find. Ex. Mika na klap mika kiutan? did you find your horse? klap tenas, to be with child.

Kla-pite, *n.* Thread, twine.

Klas-ka or Klus-ka. They, thine, them.

Klat-a-wa, *v.* To go. Klatawa teawhit, to walk; go on foot. Klatawa kopa kiutan, to ride. Klatawa kopa boat, to sail. Mamook klatawa, to send.

Kla-whap. A hole. Mamook klawhap, to dig a hole.

Klem-a-hun, *v.* To stab, to wound, to dart, to cast as a spear, to hook or gore as an ox. Nika klemahun samun, I spear salmon.

Klihl or Klilt, *adj.* Bitter.

Klik-a-muks, *n.* Blackberries, or more properly dewberries.

Klik-wal-lie. Brass.

Klim-in-a-whit, *n. v.* A lie; to lie. Hyas kuntuks kliminawhit, he is a great liar.

Klim-min. Soft; fine in substance. Ex. Klimmin sapoleel, flour. Klimmin illahie, mud; marshy ground. Mamook klimmin, to soften as by dressing a skin.

Klip. Deep; sunken. Klip chuck, deep water. Klip sun, sunset.

Klis-kwiss. A mat.

Klogh-klogh. Oysters.

Klo-nass. Uncertainty; doubt; I don't know; may be so; who knows? Ex. Klonass nika klatawa, perhaps I shall go. Q. Kah mika kahpho? where is your brother? A. Klonass, I don't know.

Klone. Three.

Klook. Broken. Klook teawhit, broken legged; lame.

Klootch-man. A woman; a female of any animal. Tenas klootchman, a girl. Klootchman kiutan, a mare.

Kloshe. Good; well; enough. Kloshe nannitsh, look out; take care. Hyas kloshe, very well.

Klose-spouse. Shall or may I? let me. Ex. Klose-spouse nika mamook pia okook? shall I cook that? (literally [is it] good that I make cook that?)

Klugh. To tear. Mamook klug illahie, to plough.

Kluk-ull. Broad or wide, as of a plank.

- Ko. To reach; arrive at. Chee klaska ko, they have just come. Kansih nesika ko kopa Nisqually? when shall we reach Nisqually?
- Ko-ko. To knock. Koko stick, a woodpecker.
- Kok-shut. To break; broken; to beat. Hyas kokshut, broken to pieces.
- Kon-a-way. All; every. Klaska konaway klatawa, they have all gone. Konaway tilikum, everybody. Konaway kah, everywhere.
- Koo-sah. The sky.
- Ko-pa. To; in; at; with; towards; of; about; concerning; there or in that place. Ex. Kopa nika house, at my house. Lolo okook kopa mika, take that home with you. Cultus kopa nika, it is nothing to me.
- Ko-pet. To stop; leave off; enough. Kopet wau-wau, stop talking. Kopet ikt, only one. Kopet okook, that's all. Wake siuh kopet, nearly finished. Kopet tomalla, day after to-morrow.
- Kow. To tie; to fasten. Kow mika kiutan, tie your horse. Ikt kow, a bundle.
- Kul-lagh. A fence, corral or enclosure. Kullagh stick, fence rails.
- Kull. Hard in substance; difficult. Chahko kull, to become hard. Mamook kull, to harden; to cause to become hard. Hyas kull spose mamook, it is very hard to do so. Kull stick, oak or any hard wood.
- Kum-tuks. To know; understand; be acquainted with; imagine; believe. Mamook kumtuks, to explain. Kopet kumtuks, to forget. Halo kumtuks, stupid; without understanding. Kumtuks kliminawhit, to be a liar. Nika kumtuks okook tyee, I know that chief. Nika kumtuks Klikatat wau-wau, I understand the Klikatat language.
- Kon-a-way moxt. Both; together. Konaway moxt kahkwa, both alike.
- Kun-sih. How many; when; ever. Kunsih tilikum mitlite? how many people are there? Kunsih mika klatawa? when do you go? Wake kunsih, never. Mamook kunsih, to count.
- Kush-is. Stockings.
- Kwah-ne-sum. Always; forever.
- Kwah-nice. A whale.
- Kwah-ta. The quarter of a dollar.
- Kwah-tin. See Yakwahtin.
- Kweest. Nine.
- Kwa-lal. To gallop.
- Kwal'h. An aunt.
- Kwan-kwan. Glad.
- Kwash. Fear; afraid; tame. Mamook kwash, to frighten; to tame.
- Kwates. Sour.
- Kweh-kweh. A mallard duck.
- Kwek-wi-ens. A pin.
- Kweo-kweo. A ring; a circle.
- Kwetlh. Proud.
- Kwin-num. Five.
- Kwish. Refusing anything contemptuously.
- Kwit-shad-ie. The hare or rabbit.
- Kwo-lann. The ear. Halo kwolann, or Ikpooie kwolann, deaf.
- Kwult'h. To hit; to wound with an arrow or gun.
- Kwun-nun. A count; numbers. Ex. Mamook kwunnum, to count.
- Kwutl. Literally fast; to push or squeeze. Hyas mamook kwutl, hand tight.

L.

- La-bleed. A bridle.
- La-boos. The mouth; the mouth of a river. Moxt laboos, the forks of a river.

- La boo-ti. A bottle.
 La-ca-lat. A carrot.
 La-ca-set. A box, trunk or chest.
 La-clo-a. A cross.
 Lagh. To lean; to tip as a boat; to stoop; to bend over as a tree. Wake
 mika lagh kopa okook house, don't lean against that house.
 La-gome. Pitch; glue. La gome stick, light-wood; the pitch-pine.
 La-gwin. A saw.
 La-hal. See Shuhai.
 Lahb. The arbutus.
 La-hash. An axe or hatchet.
 Lak-if. Four; four times. Lakit tahielum, forty.
 La-kles. Fat; oil.
 La-lah. To cheat; fool; to practise jokes. * Mamook lalah, to make fun.
 La-lahm. An oar. Mamook lalahm, to row.
 La-lang. The tongue; a language.
 La-leem. A file.
 La-messe. The ceremony of the mass.
 La-mes-tin. Medicine.
 Lam-mi-eh. An old woman.
 La-mon-ti. A mountain.
 La-peep. A tobacco pipe. Lapeep kullakala, the pipe bird.
 La-pehsh. A pole; the setting pole of a canoe or boat.
 La-pel-lah. Roast. Mamook lapellah, to roast before the fire.
 La-pelle. A shovel or spade.
 La-pe-osh. A mattock; a hoe.
 La-piege. A trap.
 La-plash. A board.
 La-pu-el. A frying pan. Mamook lapoel, to fry.
 La-pome. An apple.
 La-pool. A fowl; poultry. Siwash lapool, the grouse.
 La-poo-shet. A fork.
 La-pote. A door.
 La-sanjel. A girth; a sash; a belt.
 La-see. A saw.
 La-sell. *A saddle.
 La-shal-loo. A plough.
 La-shan-del. A candle.
 La-shase. A chair.
 La-shen. A chain.
 La-siet. A plate.
 La-sway. Silk; silken.
 La-tahb. A table.
 La-tet. The head. Pil latet, red-headed.
 La-tlah. A noise, Mamook latlah, to make a noise.
 La-ween. Oats.
 La-west. A waistcoat.
 Lazy. Lazy.
 Le-bah-doi. A shingle.
 Le-bal. A ball; bullet. Tenass lebal, shot.
 Le-bis-kwie. Biscuit; crackers; hard bread.
 Le-blau. A sorrel horse; chestnut colored.
 Le-clem. Cream-colored; a cream colored or light dun horse.
 Le-cock. A cock; a fowl.
 Le-doo. A finger.
 Le-gley. A gray horse; gray.

- Le-jaub. See Diaub.
 Le-kleh. A key. Mamook le kleh, lock the door.
 Le-kloo. A nail; nails.
 Le-koo. The neck.
 Le-kye. A spot; spotted or speckled. Lekye salmon, the spotted or winter salmon.
 Lo-lo-ba. A ribbon.
 Le-loo. A wolf.
 Le-mah. The hand; the arm. Kloshe lemah, the right hand. Potlatch lemah, shake hands.
 Le-mah-to. A hammer.
 Le-mel. A mule.
 Le-mo-lo. Wild; untamed.
 Le-moo-to. Sheep.
 Le-pan. Bread; raised or light bread.
 Le-pee. The feet.
 Le-pish-e-mo. The saddle blankets and housings of a horse.
 Le-plet. A priest.
 Le-pwau. Peas.
 Le-sak. A bag; a pocket.
 Le-sap. An egg; eggs.
 Le-see-blo. Spurs.
 Le-see-zo. Scissors.
 Le-sook. Sugar.
 Le-tah. The teeth.
 Le-whet. A whip. Mamook lewhet, to whip.
 Lice. Rice.
 Lik-pu-hu. An elder sister.
 Lip-lip. To boil. Mamook liplip, to make or cause to boil.
 Lo-lo. To carry; to load. Lolo kopa chikchik, to carry in a cart. Mamook lolo kopa canim, to load into a canoe.
 Lo-wul-lo. Round; whole; the entire of any thing. Lowullo saje'cel, whole wheat. Mamook lowullo, to roll up.
 Lope. A rope. Tenas lope, a cord. Skin lope, a rawhide.
 Lum. Rum.

M.

- Mah-kook. To buy or sell. Kah mika mahkook okook calipeen? where did you buy that rifle? Hyas mahkook, dear. Tenas mahkook, cheap.
 Mah-kook-house. A trading house or a store.
 Mah-lie. To forget.
 Mahsh. To leave; to turn out; to throw away; to part with; remove. Ex. Mahsh chuck kopa boat, bail the boat out. Mahsh okook salmon, throw away that fish. Mahsh mika capo, take off your coat. Yaka mahsh tum-tum kopa nika, he has given me his orders.
 Mah-sie. Thank you.
 Maht-lin-nie. Off shore.
 Maht-wil-lie. In shore; shoreward; keep in.
 Ma-lah. Tinware; crockery; earthenware.
 Mal-i-eh. To marry.
 Ma-ma. A mother.
 Mam-ook. To make; to do; to work.
 Man. A man. Ex. Tenas man, a young man or boy.
 Mel-a-kwa. A mosquito.
 Mel-ass. Molasses.

Men-a-loost. To die ; dead. Mamook memaloost, to kill.
 Me-sah-chie. Bad ; wicked.
 Me-si-ka. You ; your ; yours.
 Mi-ka. Thou ; thy ; thine.
 Mi-mie. Down stream.
 Mist-chi-mas. A slave.
 Mit-ass. Leggings.
 Mit-lite. To sit ; sit down ; stay at ; reside ; remain. Ex. Mitlite nika
 hyiu salmon kopa, sit down I have you plenty of salmon. Mitlite keek-
 willie, to put down.
 Mit-whit. To stand ; stand up. Mitwhit stick, a standing tree ; a mast.
 Mokst. Two ; twice.
 Moo-la. A mill.
 Moo-lock. An elk.
 Moon. The moon. Ikt moon, a month. Sick moon, the wane or old moon.
 Moos-moos. Buffalo ; horned cattle.
 Moo-sum. To sleep ; sleep. Nika hyas moosum, I slept very sound.
 Mow-itsh. A deer ; venison.
 Muck-a-muck. To eat ; to bite ; food. Muckamuck chuck, to drink water.
 Musket. A gun or musket. Stick musket, a bow.

N.

Na. The interrogative particle. Ex. Mika na klatawa okook sun ? do you
 go to-day ? Interrogation is, however, often conveyed by intonation only.
 Nah. Look here ! I say ! Nah sikhs, halloo, friend !
 Nan-itsh. To see ; look ; look for ; seek. Nanitsh yahka, look there.
 Kloshe nanitsh, look out ; take care. Cultus nanitsh, to look round idly
 or from curiosity only. Mamook nanitsh, to show.
 Nau-its. The sea beach.
 Na-wit-ka. Yes ; certainly ; yes indeed ; to be sure. Nawitka wake nika
 kumtuks, indeed I don't know. Wake mika nanitsh ? did you not see
 [it] ? Nawitka, I did not.
 Nem. A name. Mamook nem, to name or call by name.
 Ne-nam-ooks. The land otter.
 Ne-si-ka. We ; us ; our.
 Ne-whah. Hither ; come, or bring it hither. Ex. Newhah nika nanitsh,
 here, let me see it.
 Ni-ka. I ; me ; my ; mine.
 Nose. The nose ; also, a promontory. Boat nose, the bow of a boat.

O.

O-koke. This ; that ; it. Iktah okook ? what is that ? Okook sun, to-day.
 Okook klaksta, he who. Okook klaska, they (being present.)
 O-la-pits-ki. Fire.
 O-le-man. Old man. An old man ; old ; worn out. Hyas eleman kiuatan,
 a very old horse.
 Ol-hy-iu. A seal.
 O-lil-lie. Berries. Shot olillie, huckleberries. Sishpult olillie, raspberries.
 Salmon olillie, salmon berries.
 O-lo. Hungry. Olo chuck, thirsty ; olo moosum, sleepy.
 O-luk. A snake.
 Oos-kan. A cup ; a bowl.
 O-pe-kwan. A basket ; tin kettle.
 O-pitl-kegh. A bow.

O-pit-sah. A knife. Opitsah yahka sikhs (the knife's friend), a fork.
 O-poots. The posterior, the tail of an animal. Boat opoots, the rudder.
 Opoots-sill, a breech clout.
 Ote-lagh. The sun.
 Ow. A brother younger than the speaker.

P.

Pahtl. Full. Pahtl lum or paht-lum, drunk. Pahtl chuck, wet.
 Paint. Paint. Mamook paint, to paint.
 Papa. A father.
 Pa-see-sie. A blanket; woollen cloth.
 Pa-si-ooks. A Frenchman.
 Pchih or Pit-chih. Thin in dimensions.
 Pe-chugh. Green.
 Pee. Then; besides; and; or; but. Pee weght, and also; besides which.
 Pee nika wauwau wake, but I say, No.
 Peh-pah. Paper; a letter; any writing. Mamook pehpah, to write.
 Pel-ton. A fool; foolish; crazy. Kahkwa pelton, like a fool. Hyas pelton
 mika, you are very silly.
 Pe-shak. Bad.
 Pe-what-tie. Thin, like paper.
 Pi-ah. Fire; ripe; cooked. Mamook piah, to cook; to burn. Piah ship, a
 steamer. Piah ollille, ripe berries. Piah sapolil, baked bread. Piah
 sick, the venereal disease. Saghillie piah, lightning.
 Pil. Red; of a reddish color. Pil illahie, red clay or vermilion. Pil dolla,
 gold. Pil chikamin, copper. Pil kiuatan, a bay or chestnut horse.
 Pil-pil. Blood. Mahsh pilpil, to bleed.
 Pish. Fish.
 Pit-lilh. Thick in consistence, as molasses.
 Piu-piu. To stink; a skunk.
 Poh. To blow. Mamook poh, to blow out or extinguish, as a candle.
 Po-lak-lie. Night; darkness; dark. Tenas polaklie, evening. Hyas polaklie,
 late at night; very dark. Sit-kum polaklie, midnight.
 Pol-lal-lie. Gunpowder; dust; sand. Polallie illahie, sandy ground.
 Poo. The sound of a gun. Mamook poo, to shoot. Moxt poo, a double
 barrelled gun. Tohum poo, a six shooter.
 Poo-lie. Rotten.
 Pot-latch. A gift; to give. Cultus potlatch, a present or free gift.
 Pow-itsh. A crab apple.
 Puk-puk. A blow with the fist; a fist fight. Mamook pukpuk, to box; to
 fight with the fists. Pukpuk solleks, to fight in anger.
 Puss-puss. A cat.

S.

Sagh-a-lie. Up; above; high. Saghahie tyee (literally the chief above) God.
 Sail. A sail; any cotton or linen goods. Mamook sail, to make sail.
 Mamook keekwillie sail, to take in sail. Tzum sail, printed cloth or calico.
 Sa-kol-eks. Leggings; trousers; pantaloons. Keekwillie sakoleks, drawers.
 Sal-lal. The sallal berry.
 Salmon. The salmon. Tyee salmon, i.e., chief salmon, the spring salmon.
 Salt. Salt or a salt taste. Salt chuck, the sea.
 San-de-lie. Ash colored; a roan horse; roan colored.
 Sap-o-lill. Wheat; flour or meal. Piah sapolill, baked bread. Lolo
 sapolill, whole wheat.

- Se-ah-host. The face ; the eyes. Halo seahhost, blind. Icht seahhost, one-eyed.
- Se-ah-po. A hat or cap. Seahpo olillie, the raspberry.
- Shame or Shem. Shame. Halo shem nika ? arn't you ashamed of yourself ?
- Shan-tie. To sing.
- She-lok-um. A looking glass ; glass.
- Ship. Ship or vessel. Stick ship, a sailing vessel. Piah ship, a steamer.
- Ship man, a sailor.
- Shoes. Shoes. Stick shoes, boots and shoes made of leather.
- Shot. Shot ; lead. Shot olillie, huckleberries.
- Shu-gah. Sugar.
- Shugh. A rattle. Shugh opoots, a rattlesnake.
- Shut. A shirt.
- Shwah-kuk. A frog.
- Si-ah. Far ; far off. Comparative distance is expressed by intonation or repetition ; as siah-siah, very far. Wake siah, near, not far.
- Si-am. The grizzly bear.
- Sick. Sick. Cole sick, the ague. Sick tumtum, grieved ; sorry ; jealous ; unhappy.
- Sikhs. A friend.
- Sin-a-mox. Seven.
- Si-pah. Straight, like a ramrod.
- Sis-ki-you. A bob-tailed horse.
- Sit-kum. A half ; a part. Sitkum dolla, half a dollar. Sitkum sun, noon.
- Tenas sitkum, a quarter or a small part.
- Sit-lay. Stirrups.
- Sit-shum. To swim.
- Si-wash. An Indian.
- Skin. Skin. Skin shoes, mocassins. Stick skin, the bark of a tree.
- Skoo-kum. Strong ; strength ; a ghost ; an evil spirit or demon. Skookum tumtum, brave. Skookum chuck, a rapid.
- Skwak-wal. A lamprey eel.
- Skwis-kwis. A squirrel.
- Sla-hal. A game played with ten small disks, one of which is marked.
- Smoke. Smoke ; clouds ; fog ; steam.
- Snass. Rain. Cole snass, snow.
- Snow. Snow.
- Soap. Soap.
- So-le-mie. The cranberry.
- Sol-leks. Anger ; angry. Mamook solleks, to fight. Tikegh solleks, to be hostile. Kumtuks solleks, to be passionate.
- So-pe-na. To jump ; to leap.
- Spo-oh. Faded ; any light color, as pale blue, drab, &c. Chahko spooh, to fade.
- Spoon. A spoon.
- Spose. Suppose ; if ; supposing ; provided that ; in order that. Spose nika nanitsh nika canim, if you see my canoe. Spose nika klatawa kopa Victoria, if or when I go to Victoria. Kahkwa spose, as if.
- Stick. A stick ; a tree ; wood ; wooden. Stick skin, bark. Ship stick, a mast. Mitwhit stick, a standing tree. Icht stick, a yard measure. Stick shoes, leather shoes or boots. Isick stick, the ash.
- Stock-en. Stockings or socks.
- Stoh. Loose. Mamook stoh, to untie ; unloose.
- Stone. A rock or stone ; bone ; horn ; the testicles. Stone kiuatan, a stallion. Mahsh stone, to castrate.
- Stote-kin. Eight.

Stutchun. The sturgeon.

Sun. The sun; a day. Tenas sun, early. Sittum sun, noon. Klip sun, sunset.

Sunday. Sunday. Icht Sunday, a week. Hyas Sunday, a holiday. Ex. Icht, mokst, klone sun kopet Sunday, one, two, or three days after Sunday.

T.

Tagh-um. Six.

Tahl-kie. Yesterday. Icht tahlkie, day before yesterday.

Tah-nim. To measure.

Taht-le-lum. Ten. Moxt, klone, &c., tahtlelum, signifying twenty, thirty, &c. Tahtleum pe ickt, &c. eleven, twelve.

Tal-a-pus. The coyote or prairie wolf; a sort of deity or supernatural being, prominent in Indian mythology; a sneak.

Ta-mah-no-us. Magic; luck; fortune; anything supernatural.

Ta-mo-litsh. A tub; barrel; bucket. Icht tamolitsh, a bushel measure.

Tanse. To dance.

Ten. Tea.

Te-ah-wit. The leg; the foot. Klatawa teahwit, to go on foot, to walk. Klook teahwit, lame.

Teh-teh. To trot as a horse.

Ten-as. Small; few; little; a child; the young of any animal. Mokst nika tenas, I have two children. Tenas hyiu, a few. Tenas sun, early.

Te-peh. Quills; the wings of a bird.

Tik-egh. To want; wish; love; like. Hyas tikegh, to long for. Ikta mika tikegh? what do you want?

Tik-tik. A watch.

Tili-i-kum. People. Cultus tilikum, common or insignificant persons. Huloima tilikum, strangers. Nika tilikum, my relations.

Tili-i-kum-ma-ma. A father.

Till. Tired; heavy; weight; a weight. Hyas till nika, I am very tired. Kansih till okook, how much does that weigh. Mamook till, to weigh.

Tin-tin. A bell; a musical instrument. Mamook tintin, to ring a bell.

T'kope. White; light colored.

Tl'kope. To cut; hew; chop.

Toh. Spit. Mamook toh, to spit.

Toke-tie. Pretty.

To-lo. To earn; to win at a game; to gain. Kansih dolla nika tolo sposo mamook? how many dollars will I earn if I work.

To-mol-la. To-morrow. Ikt tomolla, the day after.

Tot. An uncle.

To-to. To shake; sift anything; winnow.

To-toosh. The breasts of a female; milk. Totoosh lakles, butter.

To-wagh. Bright; shining; light.

Tsee. Sweet.

Tsee-pie. To miss a mark; to make a blunder. Tsee pie wayhut, to take the wrong road.

Tshi-ke. Directly; soon.

Tsi-at-ko. A nocturnal demon, much feared by the Indians.

Tchik-tchik. A wagon; a cart; a wheel. Tchik-tchik wayhut, a wagon-road. Tsil-tsil or Chil-chil. Buttons; the stars.

Tsish. Sharpen. Momook tsish, to sharpen.

Tsole-pat. A shot-pouch.

Tso-lo. To wander in the dark; to lose one's way.

Tsugh. A crack or split. Mamook tsugh, to split. Chahko tsugh, to become split or cracked.
Tuk-a-mo nuk. A hundred. It is, like ten, combined with the digits ; as icht, moxt, klone tukamonuk, one hundred, two hundred, three hundred, &c.
Tuk-wil-la. The hazel nut ; nuts in general.
Tum-tum. The heart ; the will ; opinion. Mahsh tumtum, to give orders. Mamook tumtum, to make up one's mind. Mamook kloshe tumtum, to make friends or peace. Sick tumtum, grief ; jealousy. Moxt tumtum nika, I am undecided. Q. Kah nesika klatawa ? where shall we go ? Mika tumtum ? wherever you please ; as you will. Ikta mika tumtum ? what do you think ?
Tum-wa-ta. A waterfall, cascade or cataract.
Tup-shin. A needle. Mamook tupshin, to sew ; to mend ; to patch.
Tip-so. Grass ; leaves ; fringe ; feathers ; fur. Tipso illahie, prairie. Dely tipso, hay.
Ty-ee. A chief. Saghalie tyee, the Deity. Tyee salmon, the spring salmon.
Tzum. Mixed colors ; spots or stripes ; a mark or figure ; writing ; paint, painted. Tzum sill, printed calico. Tzum pehpah, writing. Mamook tzum, to write.

W.

Wagh. To pour ; to spill ; to vomit. Mamook wagh chuck, pour out some water.
Wake. No ; not.
Wa-ki. To-morrow.
Wap-pa-too. A potato.
Wash. Wash. Mamook wash, to wash.
Waum. Warm. Hyas waum, hot. Waum illahie, summer. Mamook waum, to heat. Waum-sick-cole-sick, fever and ague.
Wau-wau. To talk ; speak ; call ; ask ; tell ; answer ; talk or conversation. Cultus wauwau, idle talk ; stuff ; nonsense. Hyas wauwau, to shout.
Way-hut. A road or trail. Chikchik wayhut, a wagon-road.
Weght. Again ; also ; more. Pe nika weght, and I too. Potlatch weght, give me some more. Tenas weght, a little more yet.
Whim. To fell. Whim stick, a fallen tree. Mamook whim okook stick, fell that tree.
Win-a-pie. By-and-bye ; presently ; wait.
Wind. Wind.

Y.

Yah-hul. A name.
Yah-ka. He ; is ; him ; she ; it, &c.
Yah-kis-llth. Sharp.
Yah-wa. There ; thither ; thence ; beyond.
Yak-so. The hair of the head ; hair generally.
Yak-wa. Here ; hither ; this side of ; this way. Yakwa kopa okook house, this side of that house.
Ya-kwah-tin. The belly ; the entrails.
Yi-em. To relate ; to tell a story ; to confess to a priest ; a story or tale.
Youtl. Glad ; pleased ; proud. Hyas youtl yahka tumtum, his heart is very glad.
Youtl-kut. Long ; length.
Yout-skut. Short (in dimension).

PART II.

English—Chinook.

A.

Above, sagh-a-lie.
 Absolve, mam-ook stol.
 Acorns, kah-na-way.
 Across, in-a-ti.
 Admiration, hwah.
 Afraid, kwass.
 After, Afterwards, kim-ta.
 Again, weght.
 All, kon-a-way.
 Alms, e-la-han or e-lann.
 Also, weght.
 Although, kegh-tchie.
 Always, kwan-e-sum.
 American, Boston.
 And, pee.
 Anger, Angry, sol-leks.
 Another, aallyma.
 Ants, kuckwalla.
 Apple, le pome.
 Apron, keh-su or ki-su.
 Arbutus uva urai, lahh.
 Arrive at, ko.
 Arrow, ka-li-tan.
 Ash, isick stick.
 Assistance, e-la-han.
 As if, kah-kwa spouse.
 At, ko-pa.
 Aunt, kwal'h.
 Awl, shoes keep-wot.
 Axe, la-hash.

B.

Bad, mesahchie or peshack.
 Bag, le sak.
 Ball, le bal.
 Bargain, mahkook ; huyhuy.
 Bark, stick skin.
 Barley, la reh.
 Barrel, tamolitsh.
 Basin, ketling.
 Basket, opekwan.
 Beads, kamosuk.
 Bear (black) chet-woot ; itswoot (grizzly) siam.
 Beat to, kokshut.
 Beaver, ee-na.
 Because kehwa.
 Become to, chahko.
 Bed, bed.
 Before, e-lip or el-ip.
 Behind, kimta.

Bell, tintin.
 Belly, yakwahtin.
 Below, keekwillie.
 Belt, la sanjel.
 Berries, olillie ; olallie.
 Best, elip, kloshe.
 Between, patsuck.
 Beyond, yahwa.
 Bird, kulakula.
 Biscuit, lebiskwee.
 Bit or Dime, bit.
 Bitter, klihl.
 Black, klale.
 Blackberries, klikamucks.
 Blanket, paseesie.
 Blind, halo seahhost.
 Blood, pilpil.
 Blow out, mamook poh.
 Blue (light) spooch.
 — (dark) klale.
 Blunder to, tsee-pie.
 Board, la plash.
 Boat, boat.
 Bob-tailed ; a bob-tailed horse, siakiyou.
 Boil to, lip-lip.
 Bone, stone.
 Borrow to, ayahwhul.
 Bosom (female), totoosh.
 Both, lunamox.
 Bottle, labooti.
 Bow, opitlkegh.
 Bowl, ooskan.
 Box, lacasett.
 Bracelet, klikwallie.
 Brass, klikwallie.
 Brave, skookum tumtum.
 Bread, piah sapolill.
 Break to, kokshut.
 Breasts, totoosh.
 Breech clout, opoots sill.
 Bridle, la bleed.
 Bright, towagh.
 Bring hither, mamook chahko.
 Broad, klukulh.
 Broken, klook.
 Broom, bloom.
 Brother, kahpho, if elder than the speaker ; ow, if younger. Male cousins the same.
 Brother-in-law, ek-keh.
 Bucket, tamolitsh.
 Buffalo, moosmoos.
 Bullet, le bal ; kalitan.
 Bundle, kow.

But, pee.
 Butter, totoosh lakles.
 Buttons, tail tail.
 Buy to, mahkook.
 By-and-by, winapie.

C.

Candle, la shandel.
 Calf, tenass moosmoos.
 Calico, tzum sail.
 Canoe, canim.
 Carrot, la calat.
 Carry to, lolo.
 Cart, tsik tsik ; chickchick.
 Cascade, tumwater.
 Castrate to, mahsh stone.
 Cat, pusspuss.
 Cataract, tumwater.
 Cattle, moosmoos.
 Cedar, la plash stick.
 Certainly, nawitka.
 Chain, la shen ; chikamin lope.
 Chair, la shase.
 Change to, huy huy.
 Christmas day, hyas Sunday.
 Cheat to, la lah.
 Chicken, la pool.
 Chief, ty-ee.
 Child, tenas.
 Clams, ona ; lukutchee ; lakwitchee.
 Clams, the large kind, sinetocks.
 Clear up, chahko klah.
 Cloth, (cotton) sail.
 Clouds, smoke.
 Coal, coal.
 Coat, capo.
 Coffee, kaupy.
 Cold, cole ; tshis.
 Colors, mixed, tzum.
 Comb, comb.
 Comb to, mamook comb.
 Come to, chahko.
 Conceal to, mamook ipsoot.
 Confess to, yien.
 Conjuring, tamahnous.
 Cook to, mamook pinh.
 Copper, pil chikamin.
 Cord, tenas lope.
 Corn, esalth or yesalth.
 Corral, kullagh.
 Cotton goods, sail.
 Cougar, hyas puss puss.
 Cough, hohhoh.
 Count to, mamook kwunnun.
 Cousin, — see brother and sister.

Cow, moos moos.
 Coyote, talapus.
 Crab apple, powitsh.
 Cranberry, solemie.
 Crazy, pel-ton.
 Cream-colored, le clem.
 Crockery, piah lah.
 Crooked, kiwa.
 Cross, la clou.
 Crow, kakhah.
 Cry to, cly.
 Cup, ooskan.
 Curly, hunlkih.
 Cut to tl'kope.

D.

Dance to, tanse.
 Dark, darkness, polaklio.
 Day, sun.
 Dead, memaloost.
 Deaf, ikpooie kwillan.
 Dear, hyas mahkook.
 Deep, klip.
 Deer, mowitsh.
 Demon, skookum.
 Devil, diaub ; yaub ; lejaub.
 Different, huloima.
 Difficult, kull.
 Dig to, mamook illahie.
 Dime, bit or mit.
 Directly, tshike.
 Dirty, pah illahie.
 Displeasure, anah.
 Do to, mamook.
 Doctor, doctin.
 Dog, kamooks.
 Dollar, dolla or tahla.
 Door, la pote.
 Doubtful, klonas.
 Down stream, mi-mie.
 Drawers, keek willie sakoleks.
 Drink to, muckamuck chuck.
 Drive to, kish kish.
 Drunk, pahltum.
 Dry, dely.
 Duck. (Mallard), kweh kweh.
 Dust, polallie.

E.

Eagle, chak chak.
 Ear, kwolann.
 Early, tenas sun.
 Earn to, tolo.
 Earth, illahie.
 East, sun chahko.

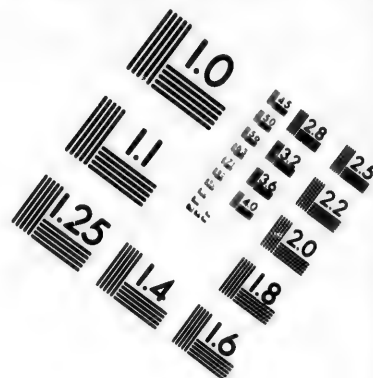
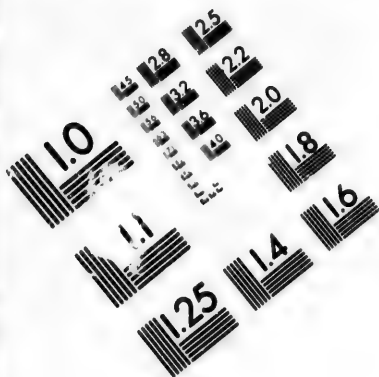
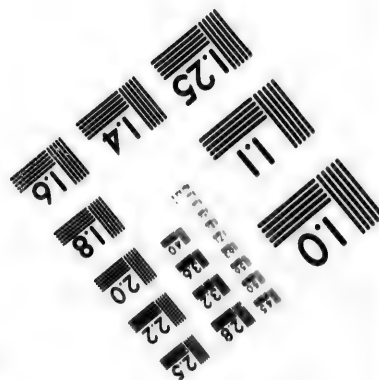
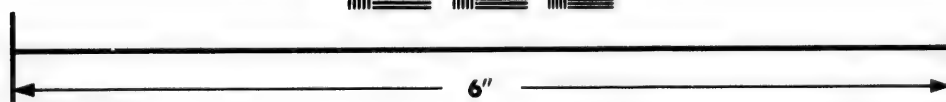
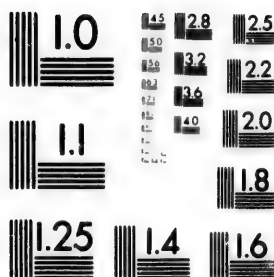
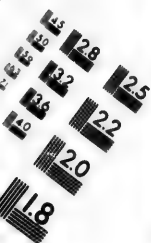


IMAGE EVALUATION TEST TARGET (MT-3)



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Kat to, muckamuck.
 Egg, le sap ; le zep.
 Eight, stotekin.
 Elk, moolock.
 Enclosure, kullagh.
 English, } King George.
 Englishman, }
 Enough, hiyu, kopet.
 Entrails, kiyagh.
 Evening, tenas polakiie.
 Every, konaway.
 Exchange, huyhuy.
 Extinguish, mamook poh.
 Eyes, seahhost.

F.

Face, seahhost.
 Faded, spooch.
 Falsehood, kliminawhit.
 Far, siah.
 Fast (quick), hyak.
 Fast (tight) kwutl.
 Fasten to, kow.
 Fat, glease.
 Father, papa.
 Fathom, itlan.
 Fear, kwass.
 Fell to, (as a tree), mamook whim.
 Fence, kullagh.
 Fetch to, mamook chahko.
 Fever, waum sick.
 Few, tenas.
 Field, klackan.
 Fight to, mamook solleks.
 Fight with fists, mamook pukpuk.
 Figured (as calico), tsuni.
 File, la leem.
 Fill to, mamook pahti.
 Find to, klap.
 Fingers, le doo.
 Finish, kopet.
 Fire, piah olapitaki.
 First, e-lip or el-ip.
 Fish, pish.
 Fish-hook, ikkik.
 Five, kwinnum.
 Flea, sopen enapoo ; chotub.
 Flesh, itlwillie.
 Flint, kilitsut.
 Flour, sapolill.
 Fly to, kawak.
 Fog, smoke.
 Food, muckamuck.
 Fool, pelton.
 Foolish, pelton.
 Foot, le pee.

Forever, kwahnesum.
 Forget to, mahlie.
 Fork, la pooshet.
 Formerly, ahnkutte ; ahnkottie.
 Four, lakit or lokit.
 Fowl, la pool.
 French, Frenchman, passiooka.
 Friend, sikhs or shikhs.
 Frog, shwahkuk.
 Fry to, mamook lapool.
 Full, pahti.
 Fundament, opoots.

G.

Gallop to, kwala.
 Gamble, mamook itlokum.
 Gather to, hokumelh.
 Get to, iskum.
 Get out, mahsh.
 Get up, get up or ketop.
 Ghost, skookum.
 Gift, cultus potlatch.
 Girl, tenas klootchman.
 Give to, potlatch.
 Glad, kwann.
 Go to, klatawa.
 God, saghalie tyee.
 Gold, pil chikamin.
 Good, kloshe.
 Good-bye, klahowya.
 Goods, iktah.
 Goose, whuywhuy ; kulakula.
 Grandfather, chope.
 Grandmother, chitsh.
 Grass, tupso.
 Grease, lakles ; glease.
 Green, pechugh.
 Grey, a grey horse, le gley.
 Grieved, sick tumtum.
 Grizzly bear, siam.
 Ground, illahie.
 Grouse, siwah la pool.
 Gun, musket, sukwala.
 Gunpowder, poh-lallie.

H.

Hair, yakso.
 Half, sitkum.
 Hammer, lemahto.
 Hand, le mah.
 Hand (game of), itlokum.
 Handkerchief, hakatahum.
 Hard, kull.
 Hare, kwitshadie.
 Harrow to, mamook comb illahie.

Hat, seahpo; seahpult.
 Haul, haul.
 Hawk, shak-shak.
 Hay, dely tupso.
 He, his, yahka.
 Head, la tet.
 Heart, tum-tum.
 Heaven, saghillie illahie.
 Heavy, till.
 Help to, mamook elann.
 Hen, la pool.
 Here, yakwa.
 Hermaphrodite, burdash.
 Hide to, ipsoot.
 High, saghalie.
 Hit to, kwul'h.
 Hoe, la peosh.
 Hog, cosho.
 Hole, klawhap.
 Holiday, Sunday.
 Horn, stone.
 Horse, kiutan.
 Horse shoes, chikamin shoes.
 House, house.
 How, kahta.
 How are you, klahowya.
 How many, kunsih; kunjuk.
 Hundred, tukamonuk.
 Hungry, olo.
 Huckleberries, shot olillie.
 Hurry, howh; hyak.

I.

I, nika.
 If, spose.
 In, kopa.
 Inability, howkwutl.
 Indeed, whaah.
 Indian, siwash.
 In shore, mahtwallie.
 Iron, chikamin.
 Island, staetjay.
 It, yahka.

J.

Jealous, sick tumtum.
 Jump to, sopena.

K.

Kamass-root, lakamass.
 Kettle, kotling.
 Key, lay kley.
 Kick to, chukkin.
 Kiss, to kiss, bebe.
 Knife, opitsah.

10--23

Knock to, koko.
 Knotty, hunk-kil.
 Know to, kumtuks.

L.

Lame, klook teahwit.
 Lamprey eel, skwakwal.
 Land, illahee.
 Language, la lang.
 Large, hyas.
 Lately, chee.
 Laughter, heehee.
 Lazy, lazy.
 Lead, kalitan.
 Leaf, tupso or tipso.
 Leap to, sopena.
 Lean to, lagh.
 Leave to, mahsh.
 Leave off, to, kopet.
 Leg, teahwit.
 Leggings, mitass.
 Lend to, apahwhul.
 Lick to, klakwun.
 Lie to, kliminawhit.
 Light, towagh.
 Lightning, saghallie piah.
 Like, kahkwa.
 Like to, tikegh.
 Little, tenas.
 Long, youtkut.
 Long ago, ahnkutte or ahnkottie.
 Look to, nanitsh.
 Look here! nah.
 Look out! kloshe nanitsh.
 Looking-glass, shelokum.
 Loose, stoh.
 Lose the way, to, tsolo; tseepie wayhut.
 Louse, enapoo or inapoo.
 Love to, tikegh.

M.

Magic, tamahnous.
 Make to, mamook.
 Man, man.
 Many, tyiu.
 Marry to, malieh.
 Mass (ceremony of), la messe.
 Mast, ship stick.
 Mat, kliskwiss.
 Mattock, la peosh.
 Measure to, tahnim.
 Meat, itlwillie.
 Medicine, la mestin.
 Mend to, mamook tipshin.

Menstruate to, mahsh pilpil.
 Metal, Metallic, chikamin.
 Middle the, katsuk or kotsuk.
 Midnight, sitkum polaklie.
 Milk, totoosh.
 Mill, moola.
 Mind the, tumtum.
 Miss to, tseepie.
 Mistake to, tseepie.
 Moccasins, skin shoes.
 Molasses, meluss.
 Money, chikamin.
 Month, moon.
 Moon, moon.
 Mole, skad.
 More, weght.
 Morning, tenas sun.
 Mosquito, melukwa.
 Mother, mama; na-ah.
 Mountain, lamonti.
 Mouse, hoolhool.
 Mouth, la boos.
 Much, hyiu.
 Mule, le mel.
 Musical instrument, tintin.
 Musket, muskot.
 Mussels, toluks.
 My, mine, nika.

N.

Nails, la cloo.
 Name, nem; yahhul.
 Near, wake sinh.
 Neck, le cou.
 Needle, keepwot.
 Never, wake kunsak.
 Now, chee.
 Night, polaklie.
 Nine, kwaist or kweest.
 No, not, wake.
 Noise, la thah.
 None, halo.
 Nonsense, cultus wauwau.
 Noon, sitkum sun.
 North, stowbelow.
 Nose, nose.
 Nothing, cultus.
 Notwithstanding, keghtchie.
 Now, alta.

Numerals—

- 1, ikt.
- 2, mokst.
- 3, klone.
- 4, lakit.
- 5, kwinnun.

6, taghum.
 7, sinnamokst.
 8, stotekin.
 9, kwaist.
 10, tahtlelum.
 11, tahtlelum pe ikt.
 20, mokst tahtlelum.
 100, ikt tukamonuk.
 Nuts, tukwilla.

O.

Oak, kull stick.
 Oar, la lahm; la lum.
 Oats, la wen.
 Off, klak.
 Off shore, mahflinnio.
 Oil, glease.
 Old, oleman.
 Old man, oleman.
 Old woman, lam-mieh.
 One, ikt.
 One-eyed, ikt seahhost.
 Onion, la onion.
 Open, hahlakl.
 Opinion, tumtum.
 Opposite to, inati.
 Or, pe.
 Order to, mahsh tumtum.
 Other, huloima.
 Otter (land) nemamooks.
 Our, nesika.
 Out doors, klaghaie.
 Owl, waugh waugh.
 Ox, moosmoos.
 Oyster, chetlo or jetlo; kloghklogh.

P.

Paddle a, isick.
 Paddle to, mamook isick.
 Paint, pent.
 Paint to, mamook pent.
 Paper, pehpah.
 Pantaloons, sakoleks.
 Part, sitkum.
 Panther, swaawa.
 Pens, le pwau.
 People, tilikum.
 Perhaps, klonas.
 Petticoat, kalakwatie.
 Piebald, le kye.
 Pin, kwekwiens.
 Pine, la gome stiek.
 Pipe, la peep.
 Pistol, tenas musket.
 Pitch, la gome.

Rabl
 Race
 Rain
 Rasp
 Rat,
 Rattl
 Razo
 Reach
 Red,
 Relat
 Rema
 Remo
 Retur
 Ribbo
 Riba,
 Rice,
 Rifle,
 Ring
 Ripe,
 Ripe b
 River,
 Roost
 Road,
 Roan
 Roast,

Plank, la plosk.
 Plate, la siet.
 Pleased, youtl.
 Plough, le shalloo.
 Plough to, klugh illahie.
 Pole, la pehsh.
 Poor, klahowyum; halo ikta.
 Pork, coasho.
 Porpoise, tuiceco.
 Posteriors, opoots.
 Potatoes, wappatoo.
 Pour to, wagh.
 Pot, ketling.
 Powder, polallie.
 Prairie wolf, talapus.
 Presently, alkie; winapie.
 Pretty, toketie.
 Priest, la plet.
 Proud, youtl; kwetl'h.
 Provided that, sponse.
 Pull, haul.

Q.

Quarter, tenas sitkum.
 Quarter (of a dollar) kwahta.
 Quick, hyak.
 Quills, tepeh.

R.

Rabbit, kwitshadie.
 Racehorse, coolie kinatan.
 Rain, snass.
 Raspberries, seahpult olillie.
 Rat, hyas hoolhool.
 Rattle, shugh.
 Rattlesnake, shughopoots.
 Razor-fish, ona.
 Reach, ko.
 Red, pil.
 Relate to, yiem.
 Remain, mitlite.
 Remove, mahsh.
 Return to, kelipi.
 Ribbon, le loba.
 Ribs, etlinwill.
 Rice, lice.
 Rifle, calipeen.
 Ring a, kweokweo.
 Ripe, piah.
 Ripe berries, piah olillie.
 River, chuck.
 Rooster, la pool.
 Road, wayhut.
 Roan colored, sandelie.
 Roast, mamook la pellah.

Rock, stone.
 Rope, lope.
 Rotten, poolie.
 Round, lolo.
 Rudder, boat opoots.
 Rum, lum.
 Run, coolie.

S.

Sack, le sak.
 Saddle, la sell.
 Saddle housings, le pishemo.
 Sail, sail.
 Sailor, ship-man.
 Salmon berries, salmon olillie.
 Salt, salt.
 Sand, polallie.
 Sandwich Islander, Oihee.
 Sash, la sanjel.
 Saw, la gwin; la scie.
 Say to, wauwau.
 Scissors, la seezo.
 Sea, salt chuck.
 Seal, olhiyu siwaash coasho.
 See to, nanitsh.
 Sell to, mahkook.
 Seven, sinamox.
 Sew to, mamook tipshin.
 Shake to, toto; hullel.
 Shame, shem.
 Sharp, yahkiail'th.
 Sharpen to, mahmook tsish.
 She, her, yahka.
 Sheep, la mooto.
 Shell money (the small size), coopcoop;
 (the large) hykwa.
 Shingle, lebahdo.
 Shining, towagh.
 Ship, ship.
 Shirt, shut.
 Shoes, shoes.
 Shoot to, mamook poh.
 Short, yuteskut.
 Shot pouch, kalitan le sac; tsalepat.
 Shot, shot; tenas le bal.
 Shout to, hyas wauwau.
 Shovel, la pell.
 Shut to, ikpooie.
 Sick, sick.
 Sift to, toto.
 Sight in, klah.
 Silk, la sway.
 Silver, t'kope chikamin.
 Similar, kahkwa.
 Since, kimta.

- Sing to, shantie.
 Sister, kahpho, if older than the speaker; ats, if younger.
 Sit to, mitlite.
 Six, taghum.
 Skin, skin.
 Skunk, hum opoots; piupiu; sku-beyou.
 Sky, koosagh.
 Slave, eletie; mistshimus.
 Sleep, moosum.
 Slowly, klahwa.
 Small, tenas.
 Smell a, humm.
 Smoke, smoke.
 Snake, oluk.
 Snow, snow; cole snass.
 Soap, soap.
 Soft, klimmin.
 Sorrel-colored, a sorrel horse, le blan.
 Sorry, sick tumtum.
 Sour, kwates.
 South, stegwaah.
 Spade, la pell.
 Speak to, wauwau.
 Spill to, wagh.
 Spirits, lum.
 Split, tsugh.
 Split to, mamook taugh.
 Spectacles, dolla seahhost, or lakit seahhost.
 Spit to, mamook toh.
 Split to become, chahko taugh.
 Spoon, spoon.
 Spotted, le kye; tzuu.
 Spurs, le seoblo.
 Squirrel, akwiakwis.
 Stab to, klemahun.
 Stand to, mitwhit.
 Stars, tsiltail.
 Stay to, mitlite.
 Steal to, kaprualla.
 Steam, smoke.
 Steamer, piah ship.
 Stick a, stick.
 Stink a, piupiu; humm.
 Stirrup, sitlay.
 Stockings, stocken; kushis.
 Stone, stone.
 Stop to, kopet.
 Store, mahkook house.
 Story, ehkahnham.
 Straight, delate or delet; sipah.
 Strawberries, amotee.
 Strong, skookum.
 Surgeon, stutehin.
 Stubborn, howlkult.
 Sugar, le seek; shugah; shukwa.
 Summer, waum illahie.
 Sun, sun; otelagh.
 Sunday, Sunday.
 Sunset, klip sun.
 Suppose, sposse.
 Surprise, hwah.
 Swan, kahloke.
 Sweep to, mamook bloom.
 Sweet, tsee.
 Swim, sitshum.

T.

- Table, la tahb.
 Tail opoots.
 Take to, iskum.
 Take care! kloshe nanitsh!
 Take off or out, mamook klak; mahah.
 Tale or story, yiem; ehkahnham.
 Talk to, wauwau.
 Tame, kwass.
 Tea, tea.
 Teach to, mamook kumtuks.
 Tear to, klugh.
 Tell to, wauwau.
 Ten, tahtlelum.
 Testicles, stone.
 Thank you, mahsie.
 That, okook.
 That way, yahiwa.
 There, yahiwa; kopah.
 They, klaska.
 Thick (as molasses), pitlilh.
 Thin (as a board), p'chih; pewhatie.
 Thing, iktah.
 Think, pittuck.
 This, okook.
 This way, yukwa.
 Thou, thy, thine, mikn.
 Thread, klapite.
 Three, klone.
 Throw away, mahah.
 Tide, see chuck.
 Tie to, kow.
 Tight, kwutl.
 Tinware, malah.
 Tip to, lagh.
 Tired, till.
 To, towards, kopa.
 Tobacco, kinooti; kinoos.
 To-morrow, tomolla.
 Tongue, la lang.
 Tough, kull.
 Trail, wayhut.

Trap, la piege.
 Tree, stick.
 Tree fallen, whim stick.
 Trot to, tehteh.
 Trout, tzum salmon.
 Trowsers, sakoleks.
 True, delate.
 Trunk, daesset.
 Truth, delate, wauwau.
 Tub, tamolish.
 Turnips, la moo-ow.
 Twine, tenas lope ; klapite.
 Two, twice, mokst.

U.

Uncle, tot.
 Under, keekwillie.
 Understand to, kumtuks.
 Unhappy, sick tumtum.
 Untamed, le molo.
 Untie to, mamook stoh ; mahsh kow.
 Up, saghalie.
 Upset to, kelipi.
 Us, nesika.

V.

Veneral the, paih sick.
 Venison, mowitsh.
 Very, hyas.
 Vessel, ship.
 Vest, la west.
 Vomit to, wagh.

W.

Wagon, taiktaik ; chickchick.
 Wait, winapie.
 Wander to, tsolo.
 Want to, tikegh.
 Warm, waum.
 Wash to, mamook wash.
 Watch a, tiktik.
 Water, chuck.
 Waterfall, tumwater.
 We, nesika.
 Weigh to, mamook ill.
 Wet, pahlt chuck.

Week, ikt Sunday.
 Well then, abba.
 West, sun mitlite.
 Whale, eh-ko-lie ; kwah-nice ; kwaddia.
 What, iktah.
 Wheat, sapolill.
 Wheel, taik-taik ; ohikchik.
 When, kansih ; kunjuk.
 Where, kah.
 Whip, le whet.
 White, t'kope.
 Who, klakata.
 Whole, lolo.
 Why, kahta.
 Wicked, messahcie.
 Wide, klukulh.
 Wild, le molo.
 Will the, tumtum.
 Willow, eenastick.
 Win to, tolo.
 Wind, wind.
 Window, glass.
 Winter, cole illahie.
 Wipe to, klakwun.
 Wire, chikamin lope.
 Wish to, tikegh.
 With, kopa.
 Witchcraft, tamahnous.
 Without, halo.
 Wolf, lelloo.
 Woman, klootshman.
 Woman (old), lammieh.
 Woman's gown, coat.
 Wood, wooden, stick.
 Work to, mamook.
 Worn out, oleman.
 Worthless, cultus.
 Wound to, klemahun.
 Write to, mam-ook peh-pah ; mamook
 tzum.
 Writing, tzum.

Y.

Yard, ikt stick.
 Year, ikt cole.
 Yellow, kawkawak.
 Yes, nawitka ; ah-ha ; e-eh.
 Yes, indeed, nawitka.
 Yesterday, tahlkie ; tahl-kie sun.
 You, your, yours, mesika.
 Young, tenas.

THE LORD'S PRAYER IN JARGON.

Nesika papa klaksta mitlite kopa saghalie, kloshe kopa nesika tumtum
 Our father who stayeth in the above good in our hearts
 mika nem; kloshe mika tyee kopa konoway tiikum; kloshe mika tumtum
 [be] thy name; good thou chief among all people; good thy will
 kopa illahie, kahkwa kopa saghalie. Potlatch konoway sun nesika mukka-
 upon earth as in the above. Give every day our food.
 muck. Spose nesika mamook masahchie, wake mika hyas solleks, pe spose
 If we do ill, [be] not thou very angry, and if
 klaksta masahchie kopa nesika, wake nesika solleks kopa klaska. Mahah
 any one evil towards us, not we angry towards them. Send away
 siah kopa nesika konoway masahchie.
 far from us all evil.

KLOSHE KAHKWA.

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APPENDIX DD.

TWO OF THE TREATIES CONCLUDED WITH INDIAN TRIBES.

Know all men,—We, the chiefs and people of the "Teechamitza" Tribe, Treaty with who have signed our names and made our marks to this deed, on the 29th day of April, 1850, do consent to surrender entirely and for ever to James Teechamitza Douglas, the agent of the Hudson's Bay Company in Vancouver Island, that is to say, for the Governor, Deputy Governor and Committee of the same, the whole of the lands situate and lying between Esquimalt Harbor and Point Albert, including the latter, on the Straits of Juan de Fuca, and extending backward from thence to the range of mountains or the Seanich Arm, about ten miles distant. The condition of or understanding of this sale is this: That our village sites and enclosed fields are to be kept for our own use, for the use of our children, and for those who may follow after us, and the land shall be properly surveyed hereafter. It is understood, however, that the land itself, with these small exceptions, becomes the entire property of the white people for ever.

It is also understood that we are at liberty to hunt over the unoccupied lands, and to carry on our fisheries as formerly.

We have received as payment twenty-seven pounds ten shillings sterling.

In token whereof, we have signed our names and made our marks at Fort Victoria, 29th April, 1850.

- | | |
|------------------|---|
| 1. LEE SACHANIS. | + |
| 2. HAYLAY KANE, | + |
| 3. PEE SHAYMOOT, | + |
| 4. KALSAYMIT, | + |
| 5. HOOCHAPS, | + |
| 6. THLANNIE, | + |
| 7. CHAMUTSTIN, | + |
| 8. TSATSULLUI, | + |
| 9. HOGNYNUET, | + |
| 10. KAMSTZCHEL, | + |
| 11. MINAYILTEN, | + |

Done in the presence of—

(Signed),	RODERICH FINLAYSON,
(Signed),	JOSEPH WM. MCKAY.

Know all men,—We, the chiefs and people of the Kosampseem Tribe, Treaty with who have signed our names and made our marks to this deed, on the 30th day of April, 1850, do consent to surrender entirely and forever to James Kosampseem Douglas, the agent of the Hudson's Bay Company, in Vancouver Island—that is to say, for the Governor, Deputy Governor and Committee of the same, the whole of the land situate and lying between the Island of the Dead, in the arm or inlet of Camoson, and the head of the said inlet embracing the

lands on the west side and north of that line to Esquimalt, beyond the inlet, three miles of the Colquils Valley, and the land on the east side of the arm enclosing Christmas Hill and Lake, and the lands west of those objects. The condition of or understanding of this sale is this :—That our village sites and enclosed fields are to be kept for our own use, for the use of our children, and for those who may follow after us, and the lands shall be properly surveyed hereafter. It is understood, however, that the land itself, with these small exceptions, becomes the entire property of the white people for ever. It is also understood that we are at liberty to hunt over the unoccupied land, and to carry on our fisheries as formerly.

We have received as payment £52 10s. sterling.

In token whereof, we have signed our names and made our marks at Fort Victoria, on the 30th day of April, 1850.

COR COR WIEB,	+
HOYAPAHYMAN,	+
SFAA,	+
and others.	

APPENDIX EE.

MEMORANDUM OF TREATIES MADE WITH INDIAN TRIBES
FOR PURCHASE OF THEIR LANDS.

I append hereto an abstract of all treaties made by the authorities with the Indians, for the purchase of their lands, in order that same might be thrown open to settlement by the whites. These treaties embrace the country from Victoria to a few miles beyond Sooke Harbor, and from Victoria to North Saanich; also the lands around Nanaïmo. The total area might probably be about one-fortieth of the whole Island. I am not aware of any similar treaties having been made with the natives on the mainland.

Abstract of
Treaties.

R. W. PEARSE,
*Chief Commissioner of Lands and Works and Surveyor General,
British Columbia.*

RETURN OF TREATIES made by Hudson Bay Company with Indian Tribes,
showing Lands conveyed and Sums paid.

Date.	Name of Tribe, &c.	Description of Lands Conveyed.	Price paid.
April 23, 1850.	"Teechamitsa," signed by See-Sachasis and ten others.	The whole of the lands situate and lying between Esquimalt Harbor and Point Albert, including the latter, on the Straits of Juan de Fuca, and extending backward from thence to the range of mountains on the Saanich Arm, about ten miles distant.	£ s. d. 27 10 00
April 30, 1850.	"Kosampson," signed by Hookcowitz and twenty others.	The whole of the lands situate and lying between the Island of the Dead on the Arm or Inlet of Camoson and the head of said inlet, embracing the land on the west side and north of that line to Esquimalt beyond the inlet, three miles of the Colquits Valley and the land on the east side of the arm enclosing Christmas Hill and Lake, and the lands west of those objects.	52 10 00
April 30, 1850.	"Swengwhung," signed by Snaw Mick and twenty-nine others.	The whole of the lands situate and lying between the Island of the Dead and the Arm or Inlet of Camoson, where the Kosampson lands terminate, extending east to the Fountain Ridge and following it to its termination on the Straits of Fuca, in the bay immediately east of Clover Point, including all the country between that line and the Inlet of Camoson.	75 00

RETURN OF TREATIES made by Hudson Bay Company with Indian Tribes, &c.—Continued.

Date.	Name of Tribe, &c.	Description of Lands Conveyed.	Price paid.
April 30, 1850.	"Chilcowith," signed by Qua-sun and eleven others.	The whole of the lands situate and lying between the sandy bay, east of Clover Point, at the termination of the Swengwhung line to Point Gonzales, and thence north to a line of equal extent passing through the north side of Minie's Plain.....	£ s. d. 30 00 00
April 30, 1850.	"Whyomilth," signed by Hol-wha-lutatin and seventeen others.	The whole of the land situate and lying between the north-west corner of Esquimalt, say from the island inclusive at the mouth of the Sawmill Stream, and the mountains lying due west and north of that point. This district being on the one side bounded by the lands of the Teechanitaa, and on the other by the lands of the Kosampson family.....	43 00 00
April 30, 1850.	"Che-ko-neip," signed by Chaythlum and twenty-nine others.	The whole of the lands situate and lying between Point Gonzales and Mount Douglas, following the boundary line of the Chilcowith and Kosampson families. The Canal de Haro and the Straits of Juan de Fuca, east of Point Gonzales.....	79 10 00
May 1, 1850.	"Ka-ky-sakan," signed by Quoite-to-kay-num and another.	The whole of the lands situate and lying between Point Albert and the Inlet of Whoyung, on the Straits of Juan de Fuca, and the snow covered mountains in the interior of the Island, so as to embrace the whole tract or district of Metehosin, from the coast to these said mountains.....	43 6 8
May 1, 1850.	"Chiahaytsun," signed by Al-chay-nook and two others.	The whole of the lands situate and lying between the Inlet of Whoyung and the Bay of Synsung, known as Sooke Inlet, and the snow covered mountains in the interior of the Island.....	45 10 00
May 1, 1850.	"Sooke," signed by Wansela and three others.	The whole of the lands situate and lying between the Bay of Synsung or Sooke Inlet to the Three Rivers beyond Thloweeckar, Point Shirvingham, on the Straits of Juan de Fuca and the snow covered mountains in the interior of Vancouver Island.....	48 6 8
February 6, 1852.	"Saanich," signed by Whut-say-mullet and nine others.	The whole of the lands situate and lying between Mount Douglas and Cowichan Head, on the Canal de Haro, and extending thence to the line running through the centre of Vancouver Island, north and south.....	41 13 4
February 11, 1852.	"Saanich," signed by Hotutstun, and others.	The whole of the lands situate and lying as follows, viz.:—Commencing at Cowichan Head and following the coast of the Canal de Haro, north-west nearly to Saanich Point or Quana-sung, from thence following the course of the Saanich Arm to the point where it terminates, and from thence by a line across country to said Cowichan Head, the point of commencement, so as to include all the country and lands within those boundaries.....	.....

RETURN OF TREATIES made by Hudson Bay Company with Indian Tribes, &c.—*Continued.*

Date.	Name of Tribe, &c.	Description of Lands Conveyed.	Price paid.
			£ s. d.
February 1851.	8, "Quesackars," signed by Wale and eleven others	The whole of the lands situate and lying between McNeill's Harbour and Hardy Bay, inclusive of these ports, and extending two miles into the interior of the Island.....	64 00 00
February 1851.	8, "Quakloths," signed by Wawattie and fifteen others.	The whole of the lands situate and lying between McNeill's Harbour and Hardy Bay, inclusive of these ports, and extending two miles into the interior of the Island.....	86 00 00
December 1854.	23, "Sarlequun," signed by Squeniston and 163 others.	Country extends from Commercial Inlet twelve miles up Nanaimo River.....	350 00 00

APPENDIX FF.

NAMES, AGES, SALARIES, AND DATES OF APPOINTMENT OF
LIGHTHOUSE STAFF, BRITISH COLUMBIA.Lighthouse
Staff.

Lighthouse or Ship.	Names.	Rank.	Age.	Annual Salary.	Date of Appointment.
				\$ cts.	
Race Rock Lighthouse ..	Thos. Argyle ...	Chief Keeper ..	32 years	625 00	May 23, 1867.
" " ..	John McQuarrie ..	1st Assistant ..	32 "	410 00	Jan. 19, 1869.
" " ..	Sam. Askew	2nd " ..	30 "	300 00	Sept. 11, 1871.
" " ..	Ellen Argyle ...	3rd " ..	32 "	150 00	May 23, 1867.
Fisgard Lighthouse	William Bevis ..	Light Keeper ..	41 "	700 00	March 16, 1861.
" " ..	Mrs. Bevis	1st Assistant ..	48 "	60 00	March 16, 1861.
Lightship, Fraser River.	James Jolly	Light Keeper ..	43 "	1,200 00	Nov. 10, 1865.
" " ..	John Flett	1st Assistant ..	60 "	480 00	Nov. 16, 1865.
" " ..	Duncan McLean ..	2nd " ..	40 "	480 00	March 1, 1869.

APPENDIX GG.

MEMORANDUM ON THE VICTORIA HARBOR DREDGE,

By the Chief Commissioner of Lands and Works and Surveyor General of British Columbia.

10th September, 1871.

In the autumn of 1861, a commission was appointed under the provisions of the "Victoria Harbor Act, 1860," consisting of the following gentlemen: Commission appointed.
George Henry Richards, Captain, R.N., Joseph Despard Pemberton, Esq., Surveyor General, V. L., Joseph William Trutch, Esq., C. E., John Gastineau, Esq., C. E., Wm. Alexander Mouatt, Captain, Hudson Bay Company Service, John James Cochrane, Esq., C. E., whose duty consisted of a thorough examination of the harbor of Victoria, its depth of water, whether it was shoaling or silting up, the nature of the bottom, and other points bearing on the question of the improvement of the navigation of the harbor, and its depth of water.

This commission continued its sittings and deliberations until 28th February, 1862, on which day the chairman addressed a letter to the Colonial Secretary, enclosing a report (a copy of which I annex hereto) marked schedule A. Clause 11 of that report recommends that a dredging machine, consisting of a series of buckets on an endless chain should be procured. On the 29th August, 1861, the commissioners resolved: Report with recommendations.

"That it is expedient as a preliminary measure to procure a steam dredging machine and diving bell from some firm of eminence in the United Kingdom, and that application be made to His Excellency the Governor to authorize the commission to order the same without delay."

On the 11th October, 1861, the commissioners resolved:

"That on reconsideration of the subject, and especially to save the time which must elapse before a dredging machine could be obtained from Scotland, the commission recommend the executive to obtain the same from San Francisco, and that a competent and reliable engineer be sent down to order and superintend its construction."

On 12th September, 1861, Captain Richards, then in San Francisco, informed the Surveyor General, that the cost of all the gear and engines for a dredger with sixteen buckets, two engines of sixteen horse power each (one English horse power—two American), would be \$10,000. Estimated cost.

On 27th December, 1861, tenders were called for, for the machinery for a dredger, but I can find no record of the results, except in a letter from the Surveyor General to the Colonial Secretary, under date of 7th May, 1864, in which he quotes an offer made by Peter Donahue for a dredge complete for \$33,000. It would appear that no steps were taken from 20th February, 1862, until 3rd April, 1863, when the late Surveyor General Mr. J. D. Pemberton, was instructed to proceed to England and procure the machinery requisite for a steam dredger, and also for a screw propeller to be used in towing the punts outside the harbour, to discharge the mud dredged from the bottom. Agent sent to England.

On his arrival in England, he investigated all the latest improvements and advertised for tenders through the Crown Agents, for the machinery for

Total cost.	a dredger, extra punts, iron work for mud punts, engines for steam tug, and extra punts and bearings; and the tender of Messrs. Blyth, of London, was accepted, for the sum of £5,070 13—\$24,592 ⁰⁰/₁₀₀; all this machinery was shipped via Cape Horn, and with it, came on two engineers who were engaged for six years at a mean salary of £250 per annum, to erect the machinery and engines on their respective hulls. The vessels arrived from England in July, 1864, with all these on board. In March of that year, contracts had been let for building the steamer's hull for \$16,800 ⁰⁰/₁₀₀ and for dredger and four mud punts for \$34,564 ⁰⁰/₁₀₀. These prices appear very high, but only bear a fair proportion to the wages paid to mechanics and ship carpenters at the time, viz.: \$5 per day. The total first cost of the dredger, steamer, "Sir James Douglas," and the four mud punts, may be estimated at about \$92,000 ⁰⁰/₁₀₀. On the 18th February, 1865, a superintendent who was under my orders, was appointed by Governor Kennedy. I gave him written instructions for his guidance. He failed entirely in working the machinery in a satisfactory manner. He was not an engineer, nor even a man of ordinary education and intelligence. On the 14th June, 1865, in consequence of a resolution passed by the House of Assembly, the Superintendent and all the crew were paid off, and the dredger moored in James' Bay. Very shortly afterwards the "Sir James Douglas" was put on, at my suggestion, to carry the mails, passengers and freight, from Victoria along the east coast of Vancouver Island, and has continued to fulfil this duty to the present time. On two occasions I tried the dredger, the first time for five hours, when the machinery all worked well, with the exception of keeping up the steam, which we attributed to the fact that the induction pipe was too near the ladders and was liable to be choked by the <i>débris</i> of sand, &c., stirred up by the buckets. If it were removed further forward, this would be obviated. The dredge itself is most strongly built and fastened, and all the machinery is of the most massive kind. I append drawings marked schedules B. C. D., to illustrate how the machinery is built and placed.*
Present use of "Sir James Douglas."	
Description of the dredge.	She is 118 feet on keel, 122 feet over all; beam 22' 10"; depth of hold 8' 6"; has side lever condensing marine engine of 25 horse power (English), two flue boilers, and can dredge to a depth of sixteen feet; consumption of fuel two tons per diem.
Hands required.	She has a good number of spare and duplicate parts and some tools, bellows and portable forge, also a diving dress and air pump. She would require an expenditure of about \$1,500 to put her into working order, as the buckets and endless chains have been taken off the ladders, and all the machinery has been removed as far as possible. She has been lying unemployed since June, 1865. Her decks and upper works would require to be caulked, and all wood work and iron work well painted.
Punts.	To work her efficiently, she should have 1 engineer; 1 stoker; 1 foreman and 4 labourers. The four punts are too large and unwieldy for the work of removing the dirt dredged to the outside of the harbour. They all require caulking, one is lying at New Westminster, and one in Victoria harbour. Two are at the Hastings Mill in Burrard Inlet; these were lent to the owners of the mill by the government. The expense of this would be about \$500 ⁰⁰/₁₀₀. The punts cost \$1,200 ⁰⁰/₁₀₀ each. I think that four smaller and more handy ones could be built complete for \$2,000 ⁰⁰/₁₀₀.
Steamer "Sir James Douglas."	The steamer "Sir James Douglas," was built with the view of towing the punts outside the harbour and back to the dredge, and also of towing vessels, and acting as a Government despatch boat generally. She is a fast and

*These drawings and plans are not here printed, but are of record in the Department of Public Works.

strongly built vessel with oak frame, well fastened and strengthened with iron knees. She is 110 feet long, breadth 20 feet, copper fastened, two condensing engines of forty horse power (English). Had new boilers in 1870, which will probably last for another five years.

The following estimate would be a fair one for working the dredger and Cost of working a small steamer for towing the punts.

DREDGER.

Pay of engineer in charge of works (per annum)...	\$2,425 00	
" engineer of dredger.....	"	1,440 00
" stoker.....	"	600 00
" foreman.....	"	600 00
" 4 labourers at \$360 ⁰⁰ / ₁₀₀ each	"	1,440 00
Provisions for engineer and seven men.....		1,100 00
		\$7,605 00
Coal, 2 tons per working day, 263 days at \$6 per ton	\$3,156 00	
Oil and waste, tallow, &c.....	600 00	
Repairs.....	2,500 00	
		\$6,256 00
Total amount of expense.....		
		\$13,861 00

TUG.

Pay of master.....	\$1,440 00	
" engineer.....	1,440 00	
" 1 sailor and 4 for punts.....	1,800 00	
Provisions for 7 men.....	1,100 00	
Coal 1½ tons per working day, say.....	2,367 00	
Oil, tallow, waste, &c.....	500 00	
Repairs,.....	1,500 00	
		\$10,147 00
Cost per annum of dredger and tug vessel.....		
		\$24,008 00

Supposing that the dredger removed and placed into punts alongside, 400 cubic yards per diem, and that this were taken outside the harbour in two punts, whilst the other two were filling, this would give a total quantity removed during the year equal to 106,200 cubic yards, on the assumption that she would work 263 days in the year; this would show a cost of 22½ cents per cubic yard. The cost per cubic yard of the five dredgers on the Clyde for four years, gives a mean of 27 cents, but perhaps the distance to which the mud had to be carried was greater, or possibly it may have had to be shovelled out of the punts, which would greatly increase the cost.

My estimate is based on the supposition that the mud would be discharged by hoppers through the bottom of the punts. Now supposing the dredger to be employed as originally intended, viz.: in improving the harbor of Victoria, the following estimate will be found very close indeed to the truth, unless the harbor should be rapidly silting up.

	Cubic y'ds.	Time required to deepen Victoria harbor.
To remove the bar at the entrance to a depth of 14 feet (low water springs), as shown on plan annexed, marked E ^a ..	349,269	
To deepen from line of wharves to Indian Village.....	18,888	
To deepen central basin.....	47,777	
Total.....		
		415,934

^aSee note on preceding page.

Removal of
the Beaver
Rock.

Say 500,000 cubic yards. At the above mentioned rate of work, it would thus take 4½ years to complete it, at a total cost of \$108,036 ⁰⁰/₁₀₀. This estimate does not take into consideration the cost of removing any rocky obstructions in the harbor, or of the cost of new piers, estimated at \$2,000 ⁰⁰/₁₀₀, or repairing the dredge which would be \$1,500 ⁰⁰/₁₀₀.

The Harbor Commissioners recommended in their report that Beaver Rock should be removed. I have made no estimate of this because I have no data to go upon, and the shortness of time will not allow of a thorough survey. By aid of the diving dress which belongs to the dredge, however, I can safely say that the cost should not exceed \$2,500 ⁰⁰/₁₀₀.

The whole question of the harbor improvement works would require in my opinion to be well considered.

Canal from
Esquimalt
Harbor.

There is a great natural scouring power to be obtained at a comparatively small cost, by digging a small canal through the portage, and using the water in Esquimalt harbour, which is high an hour or two earlier than it is in the Victoria side of the portage. The difference of level is about 18 inches, quite sufficient to create a good current downwards to Victoria. I forbear to enlarge upon this point, as I have only made a preliminary survey and given it a small consideration many years ago. This would involve some blasting at the gorge, possibly amounting to 400 or 500 cubic yards, which would represent an additional expenditure of about \$2,000 to \$2,500.

(Signed,) B. W. PEARSE,
*Chief Commissioner of Lands and Works
and Surveyor General,*

Lands and Works Department,)
Victoria. B. C. 16th September, 1871. }

SCHEDULE A.

COLONIAL SECRETARY'S OFFICE,)
VICTORIA, 18th February, 1865. }

Report of
Victoria
Harbor Com-
mission.

His Excellency the Governor directs the publication, for general information, of the following report of the Victoria Harbour Commission.
By His Excellency's command,

(Signed) HENRY WAKEFORD,
Acting Colonial Secretary.

VICTORIA, 28th February, 1862.

SIR,—The Victoria Harbour Commission having brought their labours to a conclusion, I have the honor to enclose the following report, which I request you will be good enough to lay before His Excellency the Governor.

I have, &c.

(Signed) GEORGE HENRY RICHARDS,
Chairman.

W. A. G. YOUNG, Esq.,
Colonial Secretary, Vancouver Island.

VICTORIA, 28th February, 1862.

SIR,—In pursuance of the commission issued by your Excellency, constituting us a Board with power to enquire into the defects and impediments which exist in Victoria Harbour, and to report on the most desirable means to be adopted for remedying and permanently removing the same; we have called before us such persons as we considered most competent to afford information on the subject, and have likewise carefully compared the Admiralty charts of former dates with those more recently constructed, and personally examined the harbour by taking soundings and borings of the bed of the channel, and the different rocks which obstruct and limit the accommodation for shipping, and we have now the honor to submit for your consideration the following report:

1. The harbour in its present condition will only admit of the entrance of vessels of eighteen feet draught at the highest stage of the water, while more commonly those of fifteen feet encounter delay as well as risk of grounding. The rise and fall of the tide rarely exceeds ten feet, and is more frequently less. Present state of harbor.

2. The entrance is narrow and turns a sharp angle, which renders it difficult for a long ship to enter at the highest tide without getting on shore, and across the narrowest part a bar extends for a considerable distance, with as little as eight feet on it at low water. Entrance.

3. The accommodation for shipping within the harbour and alongside the wharves is very limited, owing to the western half of the pool between Songhies point and the old bridge, having a bed of rocks, the tops of which in several instances are uncovered at low tides, or nearly so, as also to the general shallowness of the water, which obliges ships to lie on the ground during certain stages of the tide, a circumstance very detrimental to merchant vessels with heavy cargoes. Accommodation for shipping.

4. By a comparison of the old with more recent surveys, the depth of water on the bar appears to have decreased between two and three feet during the last fifteen years, while at the anchorage and alongside the wharves there has been a filling up to a much greater extent; this may probably be attributed to the throwing overboard of rubbish, ashes, &c., from the numerous vessels which have frequented the port during the last few years,—to the drainage of a large and increasing town, as well as to natural causes. Water on the bar.

5. As regards the means desirable to be adopted for the removal of these impediments, we are of opinion that although it may not be practicable to widen the channel at the entrance to any very considerable extent, yet that it may be materially improved by removing the sand spit which now extends off Shoal Point, and thus doing away with the sudden turn, which constitutes one of the greatest difficulties to the entrance of large ships. Removal of impediments.

6. That it is also practicable to deepen the channel by six feet or probably more by means of dredging. The bar, so far as we have been able to ascertain by boring, is composed of small stones, sand, and shells, covered by a layer of mud, from one to two feet in depth, and although it is impossible to state with positive certainty, we believe that there are no impediments in the bed of the harbor which will materially interfere with the formation of a channel of fourteen or fifteen feet in depth at the lowest stage of the tide. Deepening of channel.

7. Except on the bar and in the neighborhood of the rocky ledges, the bottom appears to be composed of soft mud, into which the boring-rod penetrated generally to the depth of ten feet without difficulty; therefore it would seem to be quite practicable to provide the necessary depth and accommodation at the anchorage and alongside the wharves. Nature of the bottom.

8. The entire removal of the rocky bed which occupies one half the pool between Songhies point and the old bridge, would seem to be neither practicable nor necessary, and under any circumstances would be attended with an

enormous outlay of money ; but we think it would be highly desirable to blast away such portions as rise so near the surface as to endanger vessels entering or leaving near high water, and thus to obtain a uniform depth over this bed ; and the first of these which should be removed is that part of the ledge known as the Beaver Rock, which has only two or three feet on it at low tides, and is very much in the way of ships entering or leaving the harbor.

James Bay.

9. James Bay, though at present very shoal, is capable of being very considerably deepened, its bed being composed of soft mud ; there is considerable accommodation for wharfage on both its shores, as well as anchorage in the centre, and we consider this a very important part of the harbor. It may be here remarked that its head, above the bridge, dries at low water, and is likely, as the town increases, to become extremely offensive and injurious in a sanitary point of view ; and it seems worthy of consideration whether this portion might not be reclaimed by filling in, and thus become a source of revenue to be applied to the improvement of the harbor.

Removal of old bridge.

10. The removal of the old bridge, which we understand is immediately to take place, will add considerably to the accommodation for shipping, and the facilities for constructing lines of wharves ; and, looking to the comparatively limited extent of the harbor, no piers or wharves should be allowed to extend further into the stream than those already in existence, and in the construction of any new ones, either above or below the bridge, the projection should be limited to the smallest extent consistent with a due regard to a sufficient depth, either existing or to be obtained by dredging, and should moreover exhibit one uniform line of water frontage, closed in by strong planking or masonry from high water mark to the rock bed of the harbor, and this latter recommendation should be applied to all wharves, whether now in existence or to be hereafter constructed.

Necessity for a dredging machine and

11. To carry out the improvements thus specified, or indeed, with the rapidly increasing traffic, to preserve the harbor in its present state, it will be necessary to procure a dredging machine ; and taking into consideration the extensive nature of the work to be performed we recommend that it should be constructed on the best and most approved principle, viz: that generally adopted in the harbors of the United Kingdom—a series of buckets on an endless chain.

Diving bell.

12. For the removal of rocks by blasting, a diving-bell is an indispensable aid, and is also actually necessary in conjunction with the dredging machine. A small tug steamer would be required to tow the punts with the soil removed by the dredge, in order to deposit it at a sufficient distance outside the harbor ; this would be far more economical than landing it on any part of the shore.

Extensive nature of undertaking.

13. Before concluding this part of the subject, we would desire to impress on your Excellency the extensive nature of the undertaking here proposed, and to guard against the expectation, that any permanent results can be looked for under a series of years. To effectually remove the bar at the entrance, to deepen the channel to the extent necessary, to scoop out the whole basin of the anchorage, as proposed, and to remove the rocks scattered over it, would doubtless involve a very considerable outlay, and would require the undivided attention and superintendence of an engineer, experienced in such operations, and it does not seem to us probable that such a work could be completed, under favourable circumstances, with one dredging machine within a period of six or seven years ; but whether it is decided to undertake the greater operation of permanently enlarging and deepening the harbor, or whether it will be deemed sufficient, so far to improve it by deepening the bar so as to allow vessels of fourteen feet draught to enter at all times of tide, or even to preserve it in its present state of efficiency, the dredging machine and diving-bell will be equally necessary ; indeed under either of the circumstances considered, they will be indispensable.

14. In order to make this statement the more plain, and to give a more exact idea of the work contemplated, we append a tracing of the harbor with the different portions of the work required, marked in sections, showing the number of cubic yards to be dredged in each to reduce the bottom to the uniform depth of fourteen feet on the bar, and sixteen feet within the harbor at low water, together with an approximate estimate, of the first outlay to obtain the necessary plant, with the probably annual expense of working the same.* We also append an extract from a report of a work of a similar character now carrying out in the river Clyde in Scotland, where five dredging machines are constantly employed; from which it will be seen that during a period of four years the average amount of soil removed was 57,200 cubic yards per annum for each machine, at an average cost of tenpence per cubic yard.

Tracing,
showing work
to be done.

15. It will be observed that in the accompanying estimates, no provision has been made for the removal of rocks, an operation in itself entirely distinct from the dredging.

Removal of
rocks.

16. There are a few other points, which though not involving any considerable outlay of money, are only second in importance to the essential ones just enumerated, and will go far to maintain the efficiency and convenience of Victoria as a commercial port when once so established; there are likewise some matters of detail, which, though perhaps not generally included in a report of this nature, may not be considered out of place in this particular instance.

17. A harbor light would be of great assistance to vessels entering at night, especially passenger steamers from Fraser River, and we consider Colville Island to be the most eligible site for it; we recommend on account of the numerous Indian fires and other lights constantly exposed near the harbor, that the light should be a colored one, or what is preferable a combination of bright and red by two lanterns; the light in this position would not interfere with the sea lights outside, nor could it be mistaken for that on Fisgard Island, by vessels bound for Esquimaux.

Harbor light.

18. The practice of throwing into the harbor or under the wharves, rubbish, ashes, &c., from the different vessels should be strictly prohibited, and a suitable boat or lighter should be provided for the purpose of receiving such refuse, a place being appointed in some part of the harbor, above high water mark, for its final reception.

Throwing
rubbish into
harbor.

19. The want of a public landing place is severely felt, and we strongly recommend that one be established at an early period in such a position that boats may land at all times of the tide, and that no vessels or boats be permitted to lie alongside of it, or to impede the landing of passengers, &c.

Public land-
ing place.

20. We have made ourselves acquainted with the Harbor Proclamation of 1868, and we consider that it provides, in almost every respect, for the proper regulation of all matters falling within the province of the harbour master; but its provisions appear to have been totally disregarded, and we cannot learn that any penalty has ever been enforced or conviction taken place for a breach of the laws therein laid down. Finally, we are of opinion that the appointment of the harbor master, as it at present exists in conjunction with another office, is totally incompatible with the due performance of the important functions which should devolve on him in the former capacity, viz; the rigid enforcement of the regulations before alluded to, as well as the general direction of the improvements recommended, in conjunction with the Superintending Engineer; and we recommend that he should have at his disposal a boat and crew in order that he may keep himself personally acquainted

Non compli-
ance with
harbor regu-
lations.

* See note on page 190.

with the depth of the harbor, and perform his various duties afloat in an efficient manner.

We have the honor to be your Excellency's obedient servants,
(Signed) **GEORGE HENRY RICHARDS,**
JOSEPH W. TRUTCH,
JOHN GASTINEAU,
J. DESPARD PEMBERTON,
W. A. MOUATT,
JOHN J. COCHRANE.

To His Excellency **JAMES DOUGLAS, Esq., C.B., &c., &c.,**
Governor of Vancouver Island.

Estimated cost of dredge.	Approximate estimate of cost in Victoria Harbor of a steam dredge of twenty horse power engine, and of plant necessary for working the same:—		
	Steam Dredge.....	£5,000	0 0
	Twelve Scows.....	1,500	0 0
	Tug Steamer, twenty horse power engine	1,500	0 0
	Diving Bell	500	0 0
	Workshop, Forge, Tools and Sundries	1,000	0 0
		£9,500	0 0

Estimated annual expense.	Approximate estimate of annual expense of keeping dredge at work:—		
	Wages of		
	1 Engineer for Dredge..... at £30 per month	£360	0 0
	1 Assistant do at 20 do	240	0 0
	4 Laborers do at 9 do	432	0 0
	1 Engineer for Tug at 30 do	360	0 0
	3 Laborers do at 9 do	324	0 0
	4 Laborers with the Scows ... at 9 do	432	0 0
	1 Blacksmith at 30 do	360	0 0
	1 Assistant at 12 do	144	0 0
	600 tons of coal, at 30s. per ton, being a consumption of two tons per diem, to each engine for 150 days full working time	900	0 0
	Oil, tallow, waste, and sundries, for both engines	250	0 0
	Contingencies for materials, and repairs to machinery, at ten per cent. on cost of same, viz: £9,500	950	0 0
		£1,752	0 0

Statement
respecting
Clyde dredges. Tabular statement of the working expenses of five steam dredges on the River Clyde, during the years 1841, 1842, 1843, and 1844, and of the work done by them during that period:—

Year ending.	Amount Expended.	Cubic Yards Excavated.	Rate per Cubic Yard.
	£ s. d.		£ s. d.
December 25, 1841.....	11,841 18 2	218,110	0 1 1
do 24, 1842.....	13,612 11 8	313,810	0 0 10½
do 23, 1843.....	9,742 7 6½	294,440	0 0 8
do 21, 1844.....	10,639 3 8	317,660	0 0 8

The above steam dredges were fitted with engines from twelve to twenty-two horse power and consumed from 15½ to 18lbs. of coal per horse power, per hour. The whole cost of the five dredges, a steam tug, two diving bells, and 160 punts was £39,000.

(Signed) B. W. PEARSE,
Acting Surveyor General.

31st January, 1865.

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APPENDIX HH.

**GENERAL REPORT OF THE STEAMER "SIR JAMES DOUGLAS,"
THE PROPERTY OF THE GOVERNMENT OF THE DOMI-
NION OF CANADA, RUNNING IN THE PROVINCE OF
BRITISH COLUMBIA.**

Description of
the Steamer
"Sir James
Douglas."

The Steamer was built in Victoria Harbor, in 1864, by Robert Ewing, Government Contractor, in connection with a scheme for the purpose of dredging Victoria Harbor.

Dimensions.—Length of keel, 110 feet; extreme length, 120 feet; extreme beam, 18 feet 8 inches; depth of hold, 10 feet; draught of water, 10 feet 6 inches; measurement in tons, 153 $\frac{29}{4}$.

Material of Hull.—The best Douglas pine, with the exception of alternate floor timbers, which are of natural crooks of Vancouver Island oak, coppered to 10 feet 9 inches with 20 ounce copper,

Fastenings.—Copper and iron, also locust treenails.

Stern Posts.—Secured below with heavy gun-metal shoe and through copper bolts, and above with iron knees, and a wooden transom, natural crook.

Deck.—Flush for 90 feet, from thence a poop deck, raised 2 feet high to taffrail, to give cabin room.

Accommodation.—Cabin 14 feet long by 15 feet wide, abaft this is a cabin on each side, with double berths and steward's pantry amidships, with storerooms right abaft. Captain and engineer's cabins 4 feet by beam of ship, forward of the main cabin. Forecastle to berth eight hands.

Engines.—A pair of diagonal, condensing, direct-acting; diameter of cylinder 27 inches, length of stroke of piston, 16 inches, average revolutions 95 per minute, nominal power 40 horses.

Boiler.—Tubular, length 9 feet 4 inches, breadth 10 feet, and height 13 feet, fitted with three furnaces and 190 three inch tubes, 5 feet 6 inches long; extreme working pressure 20 lbs. to the square inch, and average pressure 15 lbs.; built for and placed in vessel by Messrs. Spratt and Kriemler, of Victoria, July, 1870.

Bunkers.—Iron, capable of holding 22 tons of coal. Consumption per hour 9 cwt.

Propeller.—Composition, two bladed, 11 feet pitch and 7 feet diameter.

Speed.—Average from 8 to 9 knots.

Spare parts of Engines.—One piston and rod complete, one connecting rod, and one air-pump bucket.

Masts.—Two in number. Taper spars, 56 feet from deck to truck.

Rigging.—Hemp.

Sails.—Gaff fore and mainsail, and stay foresail.

Anchors.—Two bower, two stream, and one kedge.

Chain Cables.—Two three-quarter inch, 60 fathoms each, not studded.

Boats.—Two in number, one four oared and 22 feet long, and one two oared 16 feet long.

Pumps.—One Downton's patent deck pump.

Employment
of vessel,

Employment of Vessel.—From January, 1865, to January, 1866, towing punts and attending on dredge, lighthouses, lightships, &c.

From January, 1866, to present date, carrying mails, passengers and

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For the
Approx

1871 to

freight along the east coast of Vancouver Island from Victoria to Comox, calling at the following settlements, viz.: Cowichan, Maple Bay, Admiral Island, Chernainus, and Nanaïmo, weekly, and to Comox fortnightly. The Passenger rates of fare are as follows: fares.

From Victoria to—

Cowichan, Maple Bay, and Admiral Island, single ticket, two dollars and fifty cents (\$2 50), return ditto, four dollars (\$4).

Chernainus, single ticket, three dollars (\$3), return ditto, five dollars (\$5).

Nanaïmo, single ticket, four dollars (\$4), return ditto, six dollars and fifty cents (\$6 50).

Comox, single ticket, six dollars (\$6), return ditto, ten dollars (\$10).

Freight.—To all places between Victoria and Nanaïmo, three dollars (\$3) Freight charge per ton of forty feet.

From Victoria to Comox four dollars (\$4) per ton.

All cattle to Cowichan, Maple Bay, and Admiral Island three dollars (\$3) per head.

To Chernainus four dollars (\$4); Nanaïmo, five dollars (\$5); and to Comox, six dollars (\$6).

Small animals, such as calves, sheep, pigs, &c., from fifty cents (50 cts.) to one dollar and fifty cents (\$1 50).

Mileage.—From Victoria to Cowichan, 36 miles; thence to Maple Bay, 9 miles; thence to Admiral Island, 5 miles; thence to Chernainus, 7 miles; thence to Nanaïmo, 22 miles; and thence to Comox, 55 miles.

Victualling.—The vessel is provisioned by the steward, who has a Victualling contract from the Government of one hundred and seventy-five dollars (\$175) per month, for which sum he has to provide food for officers and crew, finding his own and cook's labor; he has also to find the vessel in water and lights. The Government, to compensate him for the smallness of his allowance, permits him to furnish food for, and charge passengers at the following rates, viz.: For breakfast and tea, fifty cents (50 cts.), and for dinner, seventy-five cents (75 cts.); he is also allowed to supply liquors to the passengers while running, at the usual charge, without paying a license.

Salaries and Wages.—

William Clarke, Master	\$120 per month.
Benjamin Madigan, Engineer	120 "
1 Man	40 "
1 do	35 "
1 do	30 "
2 Firemen	50 "
1 Indian	15 "

Salaries and wages.

Cost of Fuel.—The price of fuel delivered on board at Nanaïmo, five dollars and fifty cents (\$5 50) per ton, best quality.

RECEIPTS.		EXPENDITURE.		Receipts and expenditure.
	\$ cts.		\$ cts.	
For the year 1866	13,888 88	For the year 1866	13,849 70	
Approximated, 1867	13,771 00	Approximated, 1867	13,777 37	
do 1868	13,771 00	do 1868	13,777 37	
1869	14,003 95	1869	12,082 50	
1870	13,420 18	1870	13,478 48	
1871 to 19th July	7,901 98	1871 to 19th July	7,565 48	
	76,796 99		74,540 00	

The sum of \$4,200 per annum is included, being allowed to the credit of the ship, for carrying the mails, that being the lowest sum tendered for this mail service by a steamer of inferior power and accommodation. The expenditure column does not cover interest on cost of vessel, or depreciation.

Repairs.

Necessary repairs wanted.—Keel will require immediate attention, the vessel having struck on an unknown rock in June last; new rudder head; copper getting very thin, will require renewing; caulking outside; to do this it will be necessary to haul the vessel on ways. Estimated cost as follows, viz.:

Hauling on ways, and launching	\$550 00
Stripping, caulking and re-coppering	410 00
Repairing keel	100 00
New rudder head	100 00
Slight repairs to machinery	150 00
Material	1,500 00
	2,810 00

(Signed)

W. CLARKE,
Master in charge.

APPENDIX II.

COPY OF LEASE FROM WESTERN UNION TELEGRAPH CO., TO
BRITISH COLUMBIA GOVERNMENT, OF ITS TELEGRAPH
LINES IN THAT PROVINCE.

THIS INDENTURE made the eleventh day of February, in the year of Our Lord One thousand eight hundred and seventy-one, between the Western Union Telegraph Company of the one part, and the Government of British Columbia of the other part.

Whereas certain negotiations have taken place between the said parties hereto, respecting the maintenance and repair of the telegraphic lines herein-after mentioned: And whereas it was agreed by and between the said parties on the twentieth day of May last past, that the said Western Union Telegraph Company, should make to the said Government of British Columbia, a perpetual lease of its telegraphic lines, instruments and appurtenances for working the same from Swinomish, Washington territory, to Quesnel, British Columbia, upon conditions that the said Government of British Columbia should during the existence of such lease, maintain and keep in repair and in good working order at their own proper cost and expense the submerged or cable portions of the telegraph lines of the said Western Union Telegraph Company between Victoria, Vancouver Island, and Swinomish, Washington Territory, and it was also agreed by and between the said parties hereto, that all messages offered by the said Government of British Columbia whether on Government business or otherwise, destined for any point north of Swinomish, should be transmitted by the said Western Union Telegraph Company free of expense between Victoria and Swinomish; and it was also agreed that the obligation to pay the cost of keeping the said cable lines in repair might be terminated by the said Government of British Columbia on giving one month's previous notice in writing to the said Western Union Telegraph Company, at San Francisco, California, in which case the lease of the telegraph lines and appurtenances, from Swinomish to Quesnel and other points in British Columbia should terminate, as also the privilege of free messages between Swinomish and Victoria: And it was also agreed that the telegraph line so leased, should upon the termination of such lease, be delivered to the said Western Union Telegraph Company, by the said Government of British Columbia in as good order and condition as the same were in when the said Government received the same—reasonable wear and tear excepted:

And it was also agreed by and between the said parties hereto that the said Western Union Telegraph Company, would execute such instruments or assurances as might be deemed necessary to effectuate the agreement now being recited: And whereas since the date of the said agreement the terms thereof have been faithfully observed by both parties thereto:

And whereas it has been considered advisable that the said Western

Union Telegraph Company, should grant a formal lease to the said Government of British Columbia, of the telegraphic line above mentioned :

Formal lease
granted.

Now this Indenture Witnesseth that in performance of the said agreement and for the considerations aforesaid, the said Western Union Telegraph Company, doth hereby demise and lease unto the said Government of British Columbia, their successors, and assigns, all their telegraphic lines, instruments and appurtenances for working the same, from the Town of Swinomish, in Washington Territory, to the Town of Quesnel in British Columbia, and to all other points in British Columbia, in extension of the said line, to have and to hold the same unto the said Government of British Columbia for the term of nine hundred and ninety nine years from the said twentieth day of May, in the year of our Lord One thousand eight hundred and seventy.

Government to
maintain Sub-
marine Cable
in repair.

Provided always and these presents are made upon this express condition that the said Government of British Columbia their successors or assigns shall, during the continuance of the term hereinbefore created, or intended so to be, maintain and keep in repair, and in good working order at the proper cost and expense of the said Government of British Columbia, their successors or assigns, the submerged or cable portions of the telegraphic lines belonging to the said Western Union Telegraph Company, between the City of Victoria in Vancouver Island, and the Town of Swinomish, in Washington Territory ; and it is hereby agreed by and between the said parties hereto that during the continuance of the term hereby created, or intended so to be, all messages offered by the said Government of British Columbia, whether on Government business or otherwise, for any points north of the said Town of Swinomish, shall be transmitted by the said Western Union Telegraph Company, from the said City of Victoria, to the said Town of Swinomish, free of any cost or charge to the said Government of British Columbia.

Power to Gov-
ernment to ter-
minate lease.

And it is hereby also agreed and declared by and between the said parties hereto, that the obligation assumed by the said Government of British Columbia, as aforesaid, as a consideration for the grant of the term hereby created, or intended so to be, to pay the cost of keeping the said cable lines in repair between the said City of Victoria and the said Town of Swinomish, may be terminated by the said Government of British Columbia, their successors or assigns, on giving one month's previous notice in writing to the said Western Union Telegraph Company, by leaving the same at or sending the same to the office of the said Company, in the City of San Francisco, in the State of California, at the expiration of which notice these presents, and the term hereby created, and all the rights and privileges hereby granted, and all the liabilities of both parties hereto, or their or either of their successors or assigns, shall absolutely cease and determine.

Lines to be de-
livered in good
order.

Provided nevertheless, and it is hereby declared, that upon the expiration, or other sooner determination of the term hereby created, the said telegraph lines, so demised and leased as hereinbefore mentioned, by the said Western Union Telegraph Company, to the said Government of British Columbia, shall be delivered up by the said Government of British Columbia their successors or assigns, to the said Western Union Telegraph Company, their successors or assigns, in as good order and condition as the same were in when handed over by the said Western Union Telegraph Company, to the said Government of British Columbia, reasonable wear and tear excepted.

In witness whereof the said Western Union Telegraph Company, has caused their corporate seal to be hereunto affixed and Anthony Musgrave, Esq., the Governor of the Colony of British Columbia, has hereunto set his hand on behalf of the Government of British Columbia, and has caused the public seal of the Colony to be hereunto affixed.

THE WESTERN UNION TELEGRAPH COMPANY,

[L.S.]

By GEO. H. MUMFORD,
Genl. Agent,

Signed, sealed, and delivered on behalf of the Western Union Telegraph Company, by the said Geo. H. Mumford, in the presence of,

(Signed) GEO. S. LADD, Secretary,
COL. SLATE, Tel. Co.,

[L.S.] (Signed) A. MUSGRAVE, Governor.

Signed, sealed, and delivered on behalf of the said Government of British Columbia, by the said Anthony Musgrave, in the presence of

(Signed) GEORGE PHILLIPP, Attorney General,
British Columbia.

Certified correct copy,

CHARLES GOOD, Colonial Secretary.

APPENDIX JJ.

JAMES BAY, VICTORIA.

Embankment
at James Bay.

In reference to the tenders for the construction of a new bridge across James Bay, forwarded herewith for His Excellency's consideration, I take the opportunity of remarking that I have approximately calculated the cost of building an embankment, faced with a stone wall, and having a 20 feet roadway on top, across the bay on the same line as and instead of the proposed bridge, with the view of reclaiming that portion of James' Bay which lies to the eastward of the said line, and which might then be filled up with material dredged from the harbor. This measure was suggested in the report of the Victoria Harbor Commissioners, dated 28th February, 1862, and offers many prospective advantages in connection with the general scheme then advised for the improvement of the harbor.

Advantages to
accrue.

By it the wharf and harbor accommodation would be considerably increased, whilst the head of James Bay, ten acres in extent, now at low water a bank of offensive mud, a nuisance to the neighborhood, and injurious to the general health, would be converted into a valuable piece of land available either for business purposes or as a public square.

Cost of the
work great,
and delay ad-
visable.

But the cost of this embankment alone, irrespective of the filling necessary for reclaiming the land, would not be less than \$15,000 (fifteen thousand dollars), and as the benefits of the proposed plan could only be fully realized in connection with the resumption of the expensive operation of dredging the harbor, I am of opinion that this work should be deferred until the colony can better afford the outlay necessary to carry the project into execution, and the value of the land to be reclaimed has increased so as to more amply counterbalance such outlay.

(Signed,)

JOSEPH W. TRUTCH.

24th November, 1868.

The Colonial Secretary.

APPENDIX KK.

CORRESPONDENCE ON THE SUBJECT OF A GRAVING DOCK,
AT ESQUIMALT.*Rear Admiral Hastings to Governor Seymour.*

ZEALOUS, IN ESQUIMALT,

20th August, 1867. -

SIR,—Having received instructions from the Lords Commissioners of the Admiralty to report upon the facilities afforded on this station for docking vessels the size of my flag ship, I beg to acquaint Your Excellency that having failed to find such, I have directed a Board of officers to select the most eligible site in this harbor for the construction of a dock.

From Admiral
Hastings to
Governor Sey-
mour.

I now enclose for Your Excellency's information, the report I have received from them, and the services of Mr. Pearce, Assistant Surveyor-General, having been kindly rendered in consequence of my application to the Colonial Secretary, during your Excellency's absence, I am glad to be enabled to inform you that so far as the borings have yet been carried, the nature of the bottom is most favorable for such a work.

Before making my report to their lordships, I shall communicate further with Your Excellency.

I have, &c.,

(Signed,)

GEO. F. HASTINGS.

Rear-Admiral, Commander-in-Chief.

His Excellency

Governor Seymour, &c., &c.

Report on the most convenient site for erecting a Dock at Esquimalt, for the accommodation of Ships of the Squadron.

(No. 53.)

H. M. S. "ZEALOUS,"

ESQUIMALT, 31st July, 1867.

SIR,—In compliance with your memorandum of the 27th instant, we have proceeded to examine the Harbor of Esquimalt for the purpose of fixing on the most favorable site for building a dock calculated to receive such a ship as the "Zealous," or even larger, and beg to report as follows:—

1st. We find, on examination of the charts, that "Lang Cove" offers every facility for the formation of a graving dock, and would give twenty-four feet over the sill at high water. Recommendations.

2nd. Before a decisive opinion can be given, we require that the cove at the upper end should be bored, and a survey taken of the surrounding land. Captain Hamp, of Victoria, is we believe the owner or part owner of the property referred to.

3rd. To effect this recommendation, a civil engineer should in our opinion be employed.

Report as to
site of dock at
Esquimalt.

4th. As in the formation of a graving or other dock, labor would in most part have to be supplied from England, we would beg to offer as our suggestion that reference be made to the system in use at San Francisco for docking ships by means of iron pontoons; as although a graving dock would in our opinion be in all respects superior to any other, time in the erection of a dock (especially as our report has special application to the "Zealous") should be considered.

We have the honor to be, Sir,
Your obedient servants,

(Signed),	R. B. OLDFIELD, Captain, <i>H. M. S. "Melacca."</i>
do	R. DAWKINS, Captain, <i>H. M. S. "Zealous."</i>
do	W. A. LIDDELL, Commander, <i>H. M. S. "Zealous."</i>
do	GEO. L. CARR, Staff Commander, <i>H. M. S. "Zealous."</i>
do	DANL. PENDER, Master, <i>Commanding "Beaver."</i>
do	THOMAS ROGERS, Carpenter, <i>H. M. S. "Zealous."</i>

Rear-Admiral

The Hon. George F. Hastings, C.B.,
Commander-in-Chief.

Rear-Admiral
Hastings to
Governor
Seymour.

Rear-Admiral Hastings to Governor Seymour.

"ZEALOUS," AT ESQUIMALT,
16th October, 1867.

His Excellency
Governor Seymour, &c., &c.,
British Columbia.

SIR,—Referring to former correspondence and communications which have passed between Your Excellency and myself respecting the construction of a dock in this colony, I beg to acquaint you that having visited lately the Port of Nanaimo and also Burrard Inlet, both of which localities have been pointed out as offering the best sites for such a work, I am still more confirmed in my opinion that in Esquimalt Harbor is to be found the most eligible situation for a dock.

The geographical position of this harbor, the facilities of ingress and egress at any time of the day or night for sailing vessels, and the depth of water and nature of the bottom in Lang Cove—the best site therein—give it such indisputable advantages over every other port in this colony with which I am acquainted, that I have strongly urged upon the Lords Commissioners of the Admiralty the importance of such a work being therein undertaken by the Imperial Government.

The benefit that would thereby accrue to the colony under Your Excellency's Government must be so apparent as not to require comment from me, and I trust you may find yourself in a position to make such representation thereon to the Colonial Secretary of State as may tend to strengthen those which I have already made to the Admiralty.

I have, &c.,

(Signed,) GEO. F. HASTINGS, Rear-Admiral,
Commander-in-Chief.

Governor Seymour to Rear-Admiral Hastings.

Rear-Admiral

NEW WESTMINSTER,

The Hon. G. F. Hastings, C.B.

31st October, 1866

Governor
Seymour to
Rear-Admiral
Hastings.

SIR,—I have had the honor to receive your letter of the 16th instant, informing me that after having inspected the three ports of Esquimalt, Nanaimo, and Burrard Inlet you have come to the conclusion that the first named possesses the greatest advantages for the establishment of a dock.

The proposed work would be so extremely advantageous to the colony, that I shall be happy to write to the Secretary of State in support of the advice you have already tendered to the Lords of the Admiralty. In a professional matter of this kind I shall not venture to set my own judgment against yours; but I have no doubt that the striking advantages of the head of the north arm of Burrard Inlet have not escaped your attention.

There is even ground, abundance of fresh water, a position unassailable by land, and which might be made equally so against an enemy's fleet.

However, since you have arrived at a conclusion, I will support that conclusion with His Grace the Duke of Buckingham.

I have, &c.,

(Signed),

FREDERICK SEYMOUR.

Governor Seymour to the Secretary of State.

[Copy. No. 7.]

The Right Honorable

NEW WESTMINSTER,

The Duke of Buckingham
and Chandos.

6th February, 1868.

Governor
Seymour to
Secretary of
State.

MY LORD DUKE,—I have the honor to forward copies of a correspondence which has passed between Admiral Hastings and myself respecting the construction of a dock of considerable size in this colony.

2. I hardly like to place myself in opposition to Admiral Hastings in a matter of which his professional knowledge makes him a much better judge than myself. There is no doubt but that Esquimalt possesses an admirable harbor. My only objection to it was its extreme accessibility—day or night any ship might run in; but it is not even necessary to run in, as a vessel lying outside might shell any buildings in the dockyard or any vessel in the harbor.

3. Admiral Hastings appears to believe in the supremacy of the English fleet in the North Pacific under any circumstances. If such supremacy always exists, Esquimalt is clearly the place most desirable for the establishment of a dock. I cannot but consider, on the other hand, the possibility of our being worsted. In such a case, Burrard Inlet would have immense advantages, inasmuch as ships might run fifteen or sixteen miles up the inlet, having a certain number of men or guns at the entrance where a hill one hundred and eighty (180) feet high runs immediately over the deep channel. In Burrard Inlet are to be found abundance of fine timber and plenty of fresh water.

4. A dock in Esquimalt or Burrard Inlet would however be equally valuable to the colony in time of peace, and I hope that no hesitation I may feel as to the wisdom of Admiral Hastings' selection may stand in the way of his recommendation.

I have, &c.,
(Signed),

FREDERICK SEYMOUR.

Colonial
Secretary
to Governor
Seymour.

[Copy. No. 27.]

The Colonial Secretary to Governor Seymour.

DOWNING STREET,

15th May, 1868.

Governor Seymour, &c., &c.

SIR,—I have the honor to transmit to you, for your information, and in reply to your despatch of the 6th February, No. 7, a copy of a letter from the Admiralty enclosing copy of one from the hydrographer, in which he expresses his opinion that Esquimalt is the fittest place in the colony for a naval dock.

I have, &c.,
(Signed,) BUCKINGHAM AND CHANDOS.

The Admiralty
to Under-
Secretary of
State.

[Copy.]

Mr. Romaine to the Under Secretary of State.

ADMIRALTY,

9th May, 1868.

The Under Secretary of State,
Colonial Office.

SIR,—I am commanded by my Lords Commissioners of the Admiralty to acknowledge the receipt of your letter of the 27th ultimo, transmitting the copy of a despatch from Governor Seymour respecting the construction of a dock in British Columbia.

In reply, I am commanded by my Lords Commissioners to transmit to you, for the information of the Secretary of State for the Colonies, the copy of a report from the hydrographer on this subject, and I am to request that you will inform the Duke of Buckingham that my Lords Commissioners entirely concur in the hydrographer's views of the advantages of Esquimalt Harbor over Burrard Inlet.

I am, &c.,
(Signed,) W. G. ROMAINE.

Memorandum
by Captain
Richards.

Memorandum by the Hydrographer.

29th April, 1868.

I have considered this question so maturely, and so often expressed an opinion on it, after a personal experience of the positions extending over many years, that I have no hesitation in repeating my opinion that Esquimalt Harbor is the fittest place for a naval dock, and that the spot recommended by Admiral Hastings is the best that could be selected.

Esquimalt is and always must be the principal seaport in these colonies. What naval works we have are there. Esquimalt is easy of defence, and an enemy could not injure a dock there unless he got possession of the place—and there is no reason why he could not get possession of Burrard Inlet as easily as Esquimalt.

A vessel arriving at Esquimalt damaged would have to be towed one hundred (100) miles before she would reach Burrard Inlet.

Unless Esquimalt is abandoned as the naval head quarters, and all the establishments removed to Burrard Inlet, which I do not contemplate as possible, then I do not think it possible to entertain the question of a Government dock at Burrard Inlet.

(Signed,) GEORGE HENRY RICHARDS,
Hydrographer.

APPENDIX LL.

MINUTE OF THE CHIEF COMMISSIONER OF LANDS AND WORKS,

On the subject of an Overland Coach Road through British Territory, between the Pacific Coast and Canada, comparing the merits of the various Passes through the Rocky Mountains, and shewing the extent of this Road already built in British Columbia, and what remains to be done to complete it beyond the eastern boundary of the Colony to the head of steamboat navigation on the Saskatchewan.

Little has hitherto been done towards the construction of trails or roads across the Rocky Mountains, north of the 49th parallel. Present condition of trails across the Rocky Mountains.

The primitive paths through the various passes of this mountain range, originally tracked out by Indians, and only kept open, year by year, by their travel along them, are still the sole means of communication between British Columbia and the North West Territory.

Some little work was indeed done, years ago, by the Hudson's Bay Company in opening trails through the Leather and Athabasca Passes to facilitate the passage of their brigades, which at that time carried supplies from the depots east of the Rocky Mountains to Jasper's House, and thence westwards, by the Tête Jaune Cache, down the Fraser River to the various posts in the region of country now included in British Columbia; or southwards, by the Athabasca Pass, to the Boat Encampment, and down the Columbia to the posts in Washington and Oregon. But soon after the company established posts at Fort Vancouver and Victoria, supplied by ships direct from England, communication by these passes was discontinued, and the trails through them lapsed into disuse, and were soon in no better condition than before they were improved by the Hudson Bay Company's employés. At present, except when travelled over by occasional parties of prospectors or scientific explorers, these, as well as all the other Rocky Mountain passes in British Territory, are made use of by Indians only.

Many of these passes are, however, even in their primitive condition, so easy of passage that horses carry heavy loads over them with facility, and through the Vermilion Pass loaded carts have been driven on the natural roadway unimproved by labor.

But although the work of building a road over the Rocky Mountains has yet to be commenced, much has already been effected by this colony towards the consummation of the much desired line of road communication, through British Territory, between the Sea Coast of British Columbia and Canada. In fact more than one-half (in cost) of this work within the limits of the colony is now complete. Work already done by the Colony.

The Cascade Range of Mountains, the great barrier between the sea coast of this colony and its interior districts, which presented a far more difficult engineering obstacle to road-making, and one more expensive to overcome, than the Rocky Mountains themselves, has been pierced by two lines of coach road, which, commencing at Yale and Douglas respectively, the limits of steam-boat navigation on the Lower Fraser and its tributary Harrison Lake, unite at Clinton, 136 miles from Yale, on the high rolling plateau in the interior of the colony, from which junction point the road extends 242 miles further north- Two lines of road through Cascade Range

wards to Cameronton, in the heart of the Cariboo District, distant altogether 378 miles from Yale.

Branch road
from Yale to
Savona's.

A branch road twenty-three miles long, has also been built from the main line, at a point on the Buonaparte River 110 miles from Yale, to Savona's at the lower (western) end of Kamloops Lake, from which place uninterrupted steamboat navigation extends through Kamloops Lake, and up the South Thompson River to the upper (eastern) end of Great Shuswap Lake, a distance of 115 miles, and also up the North Branch of Thompson River, which joins the South Thompson at Fort Kamloops, to a distance of eighty-five miles from the latter post.

Nature and
cost of the
roads.

These roads, constructed at a total cost of \$1,339,915 (about £275,000), of which amount the section from Yale to Savona's cost \$830,000 (about £166,000), are of a character very superior to that of public roads in most young countries. They are eighteen feet wide, the surface being covered with broken stone, where (as in most parts along the Fraser and Thompson Rivers) such material is at hand, or with gravel well cambered up in the centre, with ditches on one or both sides where required.

With the exception of some short pitches as steep as one foot in ten, the sharpest inclines throughout this road are of one foot in twelve, the curves being easy, and the bridges and culverts substantially built of timber.

Loads of seven and eight tons are hauled along them by mules or oxen, at an average draught load of 1,200lbs. or 1,300lbs. to each team animal; and the mail coach drawn by six horses travels between Yale and Cariboo at the rate of nine miles an hour.

Variety of
routes for se-
lection.

From the Cariboo terminus of this road, and from Savona's, as well as from intermediate points along the road, various routes may be traced to the different passes of the Rocky Mountains. But before a judicious selection can be made of the line for a waggon road to the territory east of the Rocky Mountains, it will be necessary to determine by more exact and detailed engineering explorations and surveys than have yet been made, which of these passes presents the least obstacles to the construction and maintenance of a road through it, as well as the greatest advantages in its approaches, not only as regards engineering facilities, but with respect also to the character of the country to be passed through on either side of the mountains, its soil, climate, freedom from inroads of hostile Indians, and general capabilities for settlement, and especially in relation to its accessibility from the existing lines of communication in this colony and to the eastward.

The following remarks embody the most reliable information extant on this subject; and the accompanying opinions and estimates based thereon are advanced in anticipation of the results of such a detailed survey as has just been suggested.

Passes through
the Rocky
Mountains.

The passes through the Rocky Mountains at present known from the reports of various explorers, commencing with the Leather Pass, the most northerly point by which it would be practicable for a road connecting the Fraser River Valley with the navigable waters of the Saskatchewan to cross this range, and enumerating thence southward to the 49th Parallel, are as follows, with their respective altitudes as far as they have been reliably determined by actual observation:

1. Leather Pass	Altitude 3,760 feet.
2. Athabasca	" 7,000 "
3. Howse's	" 4,500 "
4. Kicking Horse	" 5,210 "
5. Vermilion	" 4,903 "
6. Kananasky	" 5,700 "
7. Crow's Nest	" — "
8. Kootenay ..	" 6,300 "
9. Boundary	" 6,030 "

Of these the Athabasca Pass, although otherwise very favorably situated, is so elevated, steep, and rugged as to be quite impracticable for a coach road. The six last enumerated passes although generally easy of passage, and in other respects available for road communication, are too far south for the purpose of such a line of connection between the sea-coast of British Columbia and the Canadas as is now under consideration, it having been determined by actual survey that no practicable route exists for the road through the three parallel ranges of mountains lying between the Lower Fraser Valley and the Rocky Mountains, viz.: The Cascades immediately east of the Fraser; the Gold Range west of the Columbia; and the Selkirk Range in the Big Bend of the Columbia, and between that river and the Kootenay River, except that on which the road is now built, from Yale up the Fraser and Thompson River valleys to Savona's, thence by Kamloops, through the Eagle Pass, at the upper end of Great Shuswap Lake, to the Columbia River at the Great Eddy below the Little Dalles, and northward along the valley of the river, by the Boat Encampment, and round the Big Bend southward past the mouth of Howse's Pass, of which line a more detailed description will be given further on, in connection with the Howse's Pass Route.

Objections to the six southern passes.

The position of these southern passes is therefore, as regards their accessibility from the west coast, very disadvantageous when compared with that of Howse's Pass. But they are still more ineligibly placed in respect to the approaches to them from the eastward; for these passes all debouch to the east into valleys, the waters of which are tributary to the South Saskatchewan, passing through a region of country beset with predatory Indians, and sterile and unattractive in comparison with the rich belt of land further north, through which the North Saskatchewan flows.

Southern passes compared with Howse's pass,

Through this rich district along the North Saskatchewan, a line of communication between British Columbia and the Red River Settlement must pass, by whatever route it may cross the great watershed of the continent; indeed it may safely be taken as an established fact that such a line of communication must intersect the North Saskatchewan at Fort Edmonton, or some point higher up stream, so as to take advantage to the utmost of the long extent of navigable water of that river.

Route by North Saskatchewan.

From such point, however, the southern passes are entirely cut off. They may, therefore, be dismissed from further consideration in relation to an overland route through British Territory, the choice for which is thus narrowed down, as to the point of crossing the Rocky Mountains, to an alternative between the Leather Pass and Howse's Pass.

Leather Pass Route.

The summit of the Leather Pass is the least elevated of all the known passes of the Rocky Mountains north of the 49th Parallel, being only, according to Dr. Rae, 3,760 feet above the level of the sea. From Tête Jaune Cache at the western end of this pass on the Fraser River, in latitude 52° 48' north, longitude (about) 119° 50', to Henry's House nearly due east, the distance is about ninety-five miles, the watershed being situated twenty-five miles west of Henry's House.

Leather Pass Route.

From Henry's House the pass turns nearly due north, and follows this course along the Athabasca River twenty-five miles to Jasper's House, at the eastern outlet of the pass. The total length of this pass is thus about 120 miles, in which distance no great obstacles to the construction of a road are presented by the natural formation of the ground, the chief difficulties being the swampy nature of the soil in places, and the frequent crossing of mountain streams.

From Jasper's House to Fort Edmonton, the distance by the present line

of travel is about 250 miles, through a rolling country gradually descending to the east, but in great part swampy, very deficient in grass or other feed for stock, and offering but little inducement for settlement. The distance from Jasper's House to the navigable water of the Saskatchewan may, however, be reduced to about 160 miles, by adopting a line intersecting that river at its junction with the Brazeau River. This line would pass through a country materially the same as that between Jasper's House and Edmonton, and on which the chief road-making difficulties would be the great extent of swamps to be passed through.

Distance and
Cost.

The whole distance from Tête Jaune Cache to steamboat navigation on the Saskatchewan thus appears to be 280 miles, and the cost of constructing this length of road, of the character of those above described already built in this colony, may be approximately estimated at \$650,000.

Fraser River.

From Tête Jaune Cache the Fraser River is stated to be navigable for steamers with some three or four interruptions where falls and rapids occur, necessitating portages at these points, to Quesnel Mouth, 320 miles from Yale, on the coach road between Yale and Cameronton.

The information obtained from persons who have travelled along this portion of the Fraser in canoes is too incomplete and wanting in detail to form the basis of any just estimate of its facilities for steamboat navigation; enough is known, however, to warrant the conclusion that the impediments to navigation will on practical investigation be found far more numerous and serious than they are now supposed to be by those who favor this line of route. At all events it is certain that this long line of water carriage, even if practicable at any time, can be made available only for a short period during the summer and autumn; and as the construction of a road along the Fraser from Quesnel Mouth to Tête Jaune Cache is out of the question, not only on account of the distance between these points (330 miles), but especially because of the numerous steep and rugged bluffs which oppose the passage of a road along the banks of the river, it is evident that the Upper Fraser cannot be depended on as a permanent route of communication across the continent.

Tête Jaune
Cache to Ca-
meronton.

The distance from Tête Jaune Cache to Cameronton (nearly due west) the terminus of the coach road from Yale, is not more than eighty miles as the crow flies, and it would therefore appear at first glance a matter of course that an overland route through the Leather Pass should be built by this route. But the intervening space is a sea of high rugged mountains, so broken up into deep valleys and steep ridges that from present information it seems impossible to connect the two points by a road of practical curves and gradients, and we have therefore to seek in some other direction for a line of road between Tête Jaune Cache and the Lower Fraser.

Most practic-
able route.

The most practicable route for such a road appears to be by a line running due south from the "the Cache," across the upper waters of Canoe River (which falls into the Columbia at the Boat Encampment), over the divide (about 2,800 feet above the sea level), between that stream and the North Thompson, and down the valley of the latter river by Fort Kamloops, to a junction with the present terminus of the coach road at Savona's.

The distance from Tête Jaune Cache to Savona's by this route is 235 miles, the last 130 miles of which run through an open or lightly timbered bunch grass country along the banks of the North Thompson River and Kamloops Lake, which are navigable for steamers throughout this distance, and on which waters in fact a substantial and powerful steamboat of 200 tons burden, built by the Hudson's Bay Company, is now plying.

The upper portion of this road between the Cache and the open country on the Lower Thompson (a distance of 105 miles), would pass through a dense forest most of the way, but no high or steep summits have to be crossed, nor are there any serious engineering obstacles to be encountered.

The cost of a road between Tête Jaune Cache and Savona's may therefore be safely estimated at not more than \$400,000.

There may exist routes (as some persons have stated) branching from the line just described, by way of the Wentworth or the Clearwater tributaries of the Thompson, and intersecting the present coach road somewhere about Lake La Hache (210 miles from Yale). But the advantages which either of such deviations would offer in any respect over the route just described to Savona's are, to say the least, extremely doubtful, whilst on the other hand their disadvantages are obvious enough, of which it will be sufficient to specify one,—namely:—that, whilst these routes must cross over to Lake La Hache through a district generally rough and timbered, and much intersected by swamps, the line to Savona's passes almost entirely through a nearly level prairie country.

In reference to this route from Tête Jaune Cache to Savona's, it should also be mentioned that besides the continuous navigation from Savona's extending thence 120 miles up the North Thompson as before described, there are stretches of navigable water of some fifty miles in extent to the upper portion of this river, which would be found of great avail both in the construction of the road and in assisting traffic along it.

It may therefore be assumed that should a road from the North West Territory cross the Rocky Mountains by the Leather Pass, it would follow this route down the Thompson to Savona's, to reach the Lower Fraser; and taking Yale as the western, and the junction of the Brazeau River with the North Saskatchewan as the eastern terminus, the distances by this line, and probable cost of constructing along it a coach road of a similar character to that already built in this colony may be thus recapitulated:—

	Distance.	Of which steamboat navigation.	Estimated cost of road.
Yale to Savona's.....	133 miles.	None.	Already made at a cost of \$830,000.
Savona's to Tête Jaune Cache.....	235 miles.	130 & 50 miles.	\$400,000.
Tête Jaune Cache to mouth of Brazeau River.....	280 miles.	None.	\$650,000.
Total.....	648 miles.	180 miles.	\$1,050,000.

Of this line 305 miles remain to be built within the limits of this colony at an estimated cost of \$610,000.

Howse's Pass Route.

Rocky Mountain House (3,200 feet above the sea level) in latitude 52° 20' north, longitude 115° 10' west, and sixty miles up stream from the mouth of Brazeau River, may be taken as virtually the eastern terminus of the route by way of Howse's Pass, as from that point the Saskatchewan is navigable for stern wheel steamers of light draught throughout its entire course to the Great Rapids, twelve miles from its embouchure into Lake Winnipeg; and from thence also the country eastward is so open, and descends in so gradual and even a plain to Fort Garry, that a road may be led across it in any direction, with but little expense.

The line of this route would follow up the Saskatchewan to its source, and cross the watershed 145 miles from Rocky Mountain House, at an elevation of 4,500 feet (740 feet higher than the summit of the Leather Pass). In this distance the only material engineering difficulties occur in the last

twenty miles, along parts of which the road would require to be protected from the force of the mountain torrents, which at certain seasons inundate the river valley.

Nature of the pass.

The crossing of the divide by this pass in latitude $51^{\circ} 00'$ north, is stated by Dr. Hector to be very easy, indeed almost imperceptible, and he had but little difficulty in taking his loaded pack-horses through to the Columbia, although no trail now exists through this pass, that formerly used by the North West Fur Company having long since become overgrown and obliterated.

The descent towards the Columbia, although less gradual than the ascent on the eastern slope, is described as by no means precipitous or broken, but quite practicable for a road. The distance from the summit to the Columbia at the mouth of Blaeberry River is about thirty miles, and the only obstructions noted by Dr. Hector in this section were the heavy forest trees and dense undergrowth and fallen timber which rendered the passage of his horses very tedious.

Distance and cost.

The entire distance from Rocky Mountain House to the Columbia is 175 miles, and the cost of constructing this section of road may be set down at \$360,000.

The distance from Blaeberry River down the Columbia to The Eddy, (in latitude $51^{\circ} 00'$ N., longitude about $118^{\circ} 30'$ west), at the eastern end of the Eagle Pass through the Gold Range, which divides the Columbia Valley from Great Shuswap Lake, is 165 miles.

Report of Mr. Moberley.

This section was carefully examined in 1866 by Mr. Moberley, Assistant Surveyor General of this colony, with a special view to the construction of a coach road, and his report established the fact that such a road may be built without great expense along either bank of the Columbia; no extensive bluffs occur to oppose the passage of a road, and at several points the river is so contracted that it may be spanned by a bridge of not more than 150 feet in length. The cost of such a road from Blaeberry River to the Eagle Pass has been estimated at \$412,000.

Columbia River.

Mr. Moberley reports however that this portion of the Columbia River did not at the season when he examined it (September) appear to him so available for steamboat navigation as had been supposed. The steamer "Forty-nine" now plies between Colville, in Washington Territory, and Death Rapids, forty miles above the Eagle Pass; and above Death Rapids the river is again navigable to the neighborhood of The Boat Encampment, a distance of forty miles more.

But above this point there are several rapids which Mr. Moberley considered quite impassable by steamers, and which would therefore render further continuous navigation below the mouth of Blaeberry River impracticable.

Eagle pass.

The Eagle Pass was discovered in 1865 by Mr. Moberley, and has been subsequently surveyed by Government, and a line of road marked out through it.

Previous to Mr. Moberley's discovery of this pass, it had been supposed that the Gold Range was a continuous chain of high mountains, opposing an insuperable barrier to any road between the Columbia and Fraser River Valleys.

The summit of Eagle Pass is however only 280 feet above high-water in the Columbia River, and 407 feet above the level of Great Shuswap Lake, and the snow disappears from it in the beginning of April. From the Columbia River to the point where the Eagle River empties into Great Shuswap Lake is a distance of thirty-seven miles, over which a road can be made for about \$80,000. From this point there is, as before mentioned, uninterrupted steamboat navigation 115 miles to Savona's, and steamers may also run six or eight miles up Eagle River.

Route.

To continue this route by land however to Savona's, the line of road would leave the Eagle River Valley at the Three Valley Lake (twenty miles

from the Columbia), and run nearly due south through a wide grassy valley across a low divide to the head waters of the Spillemeechene or Shuswap River, which it would follow down past the mouth of Cherry Creek to a point about seventy miles from the Columbia. Thence leaving the Shuswap it would run through a district of open prairie and sparsely timbered land, abounding in rich pasturage, and along which are scattered several farming settlements, by a course about west, twenty-five miles to the head of Okanagan Lake, and then forty-five miles northwest to the South Thompson, and down the southern banks of that river, and of Kamloops Lake, forty miles through an open grass country, very easy to make a road over, to Savona's.

The distances by this route, and the estimated cost of constructing a road by it, are therefore as follows;—

	Distance.	Of which are navigable by steamers.	Cost of constructing a road.
Yale to Savona's.....	133 miles.	None.	Already made at a cost of \$330,000.
Savona's to the Columbia River at "The Eddy".....	180 miles.	110 miles.	\$240,000.
Along the Valley of the Columbia River to the mouth of the Blueberry River.....	165 miles.	80 miles.	412,000.
From the Columbia River at the mouth of Blueberry River, to the Rocky Mountain House, head of navigation on North Saskatchewan.....	175 miles.	None.	360,000.
Total from Yale to Rocky Mountain House.....	653 miles.	190 miles.	\$1,012,000.

Of this line 375 miles lie within the limits of this colony, a road for which distance would cost \$722,000.

It thus appears that there is very little difference in the distances by these two routes between the head of navigation on the Lower Fraser, and the navigable waters of the North Saskatchewan, and that the expense of connecting these two points by road is materially the same by either route. The choice between them must therefore depend on more general considerations, in respect of which their rival merits can only be determined after more exact enquiry has been made, and fuller information obtained, and as to which it would therefore be premature to hazard any conjecture at present.

Although in the foregoing remarks the head of navigation on the Lower Fraser has been treated as the western terminus of an overland route, there is nothing to prevent the line of road being continued, whenever the requirements of traffic call for its construction, from Yale down either bank of the river to New Westminster (a distance of ninety-five miles), which town is already connected by a road nine miles in length with Burrard Inlet, a harbor of great extent and ample depth of water, accessible at all times by vessels of the largest class.

A narrow road has in fact been built along the line of telegraph on the left bank of the Fraser River for about thirty miles from Yale, and this line of road is partially opened the rest of the way to New Westminster.

It is only necessary in concluding these observations to refer to the routes through the Cascade Range, from Bentinck Arm and Bute Inlet, by which it has been proposed to establish more direct communication between the sea coast and the Upper Fraser, in the neighborhood of Alexandria and Quesnel Mouth.

These lines have as yet been but imperfectly surveyed, and are therefore only partially known. It is however certain that the distance from Quean

Distances and cost.

Comparison of two routes.

Possible extension of the road

Other routes.

Remarks as to other routes.

Objections
to such
routes.

Mouth to the coast is less by either of these lines than by way of the Fraser River. There is also but little doubt that either line is practicable for a road, although presenting obstacles to road making, the difficulties and cost of which have been greatly under estimated, especially in the case of the Bute Inlet route. But when it is taken into consideration that the construction of this latter road from Bute Inlet to Quesnel Mouth, a distance of 230 miles, is advocated as a competing line to the coach road already built from that point to Yale, the character and capacity of which have been above described, it can hardly be believed that in the present state and prospect of business in this colony, such an undertaking can be seriously contemplated, nor is it reasonable to suppose that so unnecessary a section of new road from Quesnel Mouth, running through wild tracts of land without a single white inhabitant, to a harbor of inferior character at the mouth of a narrow valley, affording hardly space for the site of a town, and but little land fit for cultivation, should, in place of the well established line to Yale, be made part of a scheme for connecting the sea coast of British Columbia with the Canadas, or that this latter most important object should be weighted down with the superfluous cost of its construction.

The various lines of route above referred to, are shown on the accompanying sketch map.*

JOSEPH W. TRUTCH.

Lands and Works Office, New Westminster, B. C.,
19th February, 1868.

*The sketch map here mentioned is not printed with this report, but is of record in the Department of Public Works.

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APPENDIX MM.

EXTRACT FROM THE "VANCOUVER ISLAND PILOT,"

By Captain G. H. Richards, R.N.

Tides.

In the outer part of Juan de Fuca Strait, there is no very great strength of tide; it varies from one to four knots, seldom so much as the latter, unless near Cape Flattery; but when approaching the more contracted part, in the neighbourhood of the Race Islands, which receives the first rush of the pent up waters of the Strait of Georgia, strengthened and diverted by the labyrinth of islands, which choke up its southern entrance, it is not surprising that eddies, races, and irregularities occur which almost baffle any attempt at framing laws which may not rather embarrass than assist the seaman; the result, however, of observations continued throughout an entire year at Esquimalt, and partially on other parts of the coast, during three seasons, appears to warrant the following conclusions, viz:—

The flood tide sets to the northward, along the outer coast of the continent and Vancouver Island. It enters the Strait of Fuca, at Cape Flattery, running with considerable velocity, sometimes three or four knots, over Duncan and Duntze rocks; it then turns sharply into the strait, passing through the various channels among the Haro Archipelago, into the Strait of Georgia, and within about five miles of Cape Mudge, where it is met by a flood from the northward, which, sweeping the western coast of Vancouver Island, enters Goleta's Channel and Queen Charlotte Sound, at its northern extremity, in latitude 51°; thence southerly down the narrow waters of Johnstone Strait and Discovery Passage, meeting the tide which enters by Fuca Strait, and reaches about midway between the northern and southern extremes of Vancouver Island, or close to the spot where the broad expanse of the Strait of Georgia merges into the narrow channels adjoining it.

On the western side of the island, the tides were found to be regular flood and ebb of six hours' duration; the times of high water on the full and change, at Nootka Sound, and at the entrance of Goleta's Channel, varying very little, and occurring near noon—the greatest range, thirteen feet; nor is any marked irregularity observable in Johnstone Strait and Discovery Passage, except the not unusual circumstance, that the ebb stream continues to run to the northward for two hours after it is low water by the shore, the water rising at the same time; the ebb stream being of seven hours' duration, the flood about five hours.

The great and perplexing tidal irregularities may therefore be said to be embraced between the Strait of Fuca, near the Race Island, and Cape Mudge, at a distance of 150 miles; and careful investigation of the observations made during the summer months, May, June, and July, there occurs but one high and one low water during the twenty-four hours; high water at the full and change of the moon happening about midnight, and varying but slightly from that hour during any day of the three months; the springs range from eight to ten feet, the neaps from four to five feet. The tides are almost stationary

for two hours on either side of high or low water, unless affected by strong winds outside.

Autumn.

During August, September, and October, there are two high and low waters in twenty-four hours—a superior and an inferior tide; the high water of the superior varying between one hour and three hours A.M., the range during these months being from three to five feet, the night tide the highest.

Winter.

During winter almost a reversal of these rules appears to take place; thus, in November, December, and January, the twelve-hour tides again occur, but the time of high water is at or about noon, instead of midnight.

Spring.

In February, March, and April, there are two tides—the superior high water occurring from one hour to three hours P.M. Thus it may be said that in the summer months the water is low during the day, and in winter low during the night.

The ebb stream has always been found to run southward through the Haro Archipelago, and out of Fuca Strait, for two and a half hours after it is low water by the shore, the water rising during that time; the ebb is stronger than the flood, and generally of two hours longer duration.

The tides during those months when two high and two low waters occur in twenty-four hours, are far more irregular than when there is only one twelve-hour tide; and another anomaly exists, viz., the greatest range not unfrequently occurs at the first and last quarters, instead of at the full and change of the moon.

APPENDIX NN.

VALUE OF IMPORTS into British Columbia, from the year ending 1870, when union with Vancouver Island was effected—and Amount of Duty paid thereon.

	1897.			1898.			1899.			1870.		
	Total Value of Imports.	Gross Amount received for Duty.	Total Value of Imports.	Gross Amount received for Duty.	Total Value of Imports.	Gross Amount received for Duty.	Total Value of Imports.	Gross Amount received for Duty.	Total Value of Imports.	Gross Amount received for Duty.	Total Value of Imports.	
United Kingdom	£ s. d. 44,231 1 4	£ s. d. Not given.	£ s. d. 151,280 10 11	£ s. d. Not given.	£ s. d. 509,039 90	£ s. d. 119,200 17	£ s. d. 1,186,289 99	£ s. d. 203,245 45	£ s. d. 641,906 62	£ s. d. 130,364 43	£ s. d. Not given.	
United States	266,891 1 8	do	313,936 8 0	do	1,186,289 99	203,245 45	1,186,289 99	203,245 45	862,309 28	151,584 71	13,403 24	
Canada			2,121 16 8	do	Not given.	2,067 70	Not given.	2,067 70	3,310 93	870 14	Not given.	
China			2,980 1 10	do	Not given.	2,286 00	Not given.	2,286 00	Not given.	432 72	Not given.	
Cuba				do	Not given.	2,286 00	Not given.	2,286 00	2,515 00	459 00	Not given.	
Japan				do	Not given.	2,286 00	Not given.	2,286 00	62 00	7 72	Not given.	
France				do	Not given.	2,286 00	Not given.	2,286 00	3,802 25	911 11	Not given.	
Sandwich Islands	7,146 17 0	do	11,661 8 6	do	57,534 00	13,131 48	57,534 00	13,131 48	75,866 24	18,403 24	Not given.	
Prussia	6,384 6 7	do	342 11 10	do	Not given.	2,011 90	Not given.	2,011 90	Not given.	Not given.	Not given.	
Tahiti	650 0 0	do	8,358 16 9	do	1,390 00	173 75	1,390 00	173 75	Not given.	Not given.	Not given.	
Peru												
Austria												

1, 2, 6 7, and 8, General Merchandise. 3, Butter and Machinery. 4, Rice. 5, Cigars.

APPENDIX OO.

SCHEDULE OF TAXES, DUTIES, FEES, AND ALL OTHER
SOURCES OF REVENUE,

Specified under the Respective Laws or Authorities under which derived.

[Levied under Customs Ordinance, 25th March, 1867.]

SCHEDULE A.

Specific duties

Specific Duties.

	\$	cts.	
Ale and Porter (in wood)	0	15	per gall.
do (in bott'le)	0	30	per dozen (quarts).
Bacon and Hams	0	4	per lb.
Barley, Oats, Malt, and Peas	0	30	per 100 lbs.
Beans and Split Peas	0	1	per lb.
Bitters	1	50	per gall.
Butter	0	10	per lb.
Candles	0	5	"
Cheese	0	5	"
Cider	0	15	per gal.
Cigars	2	00	per 100 (2 cts. each).
Coal	1	25	per ton.
Coffee (raw)	0	3	per lb.
Coffee (manufactured)	0	6	"
Eggs	0	12½	per dozen.
Flour	1	50	per barrel.
Fresh Fruits, viz.:—Apples, Pears, Plums,			
Cherries, Currants, Raspberries,			
Strawberries, and Gooseberries			
	0	1	per lb.
Gunpowder (sporting)	0	6	"
Gunpowder (blasting)	0	3	"
Hay	4	00	per ton.
Lard	0	5	per lb.
Lime	0	50	per barrel.
Lumber :—			
Rough Fir and Cedar	3	00	per 1,000 feet.
Dressed do	5	00	"
Shingles	1	00	per 1,000.
Fence Pickets	2	00	"
Laths	1	00	"
Live Stock :—			
Horses and Mules	2	00	per head.
Beef Cattle	3	00	"
Milch Cows	2	00	"
Sheep and Goats	0	75	"
Hogs	2	00	"
Potatoes	0	00½	per lb.
Rice	0	1½	"
Sugar (raw)	0	2	"
Sugar (refined)	0	2½	"

Spirits :—		
Brandy	2 00	per gall. (according to proof).
Gin, Whiskey, and Rum .. .	2 00	„ „
All other kinds .. .	2 00	„ „
Tea .. .	0 12½	per lb.
Tobacco .. .	0 25	„
Vegetables, viz. :—		
Onions .. .	0 2	„
Other kinds (fresh) .. .	0 1	„
Wheat .. .	0 35	per 100 lbs.
Wines, viz. :—		
Champagne and Moselle .. .	3 00	per dozen (quarts).
China Medicated .. .	1 50	per gall.
California (red and white) .. .	0 25	„
Claret .. .	0 20	„
Port, Sherry, and all other descriptions .. .	0 75	„
Bran and Shorts .. .	0 25	per 100 lbs.
Buckwheat .. .	0 1	per lb.
Oatmeal .. .	0 1	„
Cornmeal .. .	0 00½	„
Hops .. .	0 10	„
Shot .. .	0 2	„

SCHEDULE B.

Ad Valorem Duties.

Per cent.

Ad valorem duties.

Axes .. .	15
Beef (salt) .. .	10
Billiard and Bagatelle Tables .. .	12½
Blankets .. .	20
Boots and Shoes .. .	20
Bread .. .	20
Cards (playing) .. .	50
Chocolate .. .	20
Clothing (ready-made) .. .	15
Confectionery .. .	30
Drugs, Medicines .. .	20
Dry Goods .. .	12½
Earthenware .. .	12½
Fish (preserved, dried, and salt) .. .	15
Firearms .. .	12½
Fruits (preserved and dried) .. .	12½
Furniture .. .	15
Glass and Glassware .. .	12½
Groceries .. .	12½
Hardware and Ironmongery .. .	12½
Harness and Saddlery .. .	20
Hemp Canvas .. .	2½
Leather .. .	15
Jewellery .. .	20

	Per cent.
Machinery	10
Matches	12½
Meat (preserved)	12½
Meat (fresh)	20
Molasses	12½
Nails	12½
Nuts and Almonds	12½
Oils	15
Opium	25
Paints	10
Pork (salt)	10
Plants, Trees, and Shrubs	12½
Poultry (dead and alive)	25
Quicksilver	10
Rope, Cordage, and Twine	5
Soap	15
Stationery	12½
Tinware	25
Vegetables (preserved and salt)	10
Waggons, Carriages	20
Trunks	12½
Watches and Clocks	12½
Window Sashes and Doors	20
Ship-building Material, viz. :—	
Manufactured Sails	20
Cotton Canvas	5
Woodenware	12½
Yeast Powders	12½
All other articles not enumerated in either of the above lists, nor in the following list of free goods	12½

SCHEDULE C.

Articles free
of duty.

The following articles shall be admitted free of duty :—

Agricultural implements ; books, printed and manuscript ; bricks ; all fresh fruits not enumerated in schedule of specific duties ; coin ; gunny sacks ; iron and steel ; all kinds of woods not enumerated in schedule of specific duties ; calves under 12 months old ; personal effects ; salt ; garden seeds ; grain for seed ; tar and pitch ; tin, copper, and zinc ; lead, in pipe, sheets, and bars ; wire, iron and brass ; copper sheets, boiler plates and bolts, and patent metal for ships ; iron hoops ; sheet iron ; rough and partially manufactured woods used in construction of carriages and waggons ; steel springs ; waggon axles ; anchors ; cables, chains, and copper bolts, for ship-building ; fresh fish ; fish oil ; whalebone ; raw hemp, for rope-making ; tallow ; gas retorts ; fire-clay ; furs ; hides ; lemon and lime juice ; guano ; wool ; oakum and jute ; ships' blocks and junk ; blacksmiths' coal.

APPENDIX.

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HARBOUR DUES,

Collected under authority of the Shipping Ordinance, 1867.

Harbor dues.

For all Vessels, other than vessels holding a coasting license, entering or clearing at any port; for every such entrance or clearance (provided always that such charges shall not be made upon, or exacted from, vessels seeking any harbor in distress, or by reason of stress of weather, or solely for the purpose of supplying themselves with stores and provisions)	0	4	per ton register.
For all River and Coasting Steamers	1	50	per ton per ann.
For all Coasting Sailing Vessels.....	1	00	" "
For every Boat, plying or let out for hire, under 12 feet	2	50	for six months.
For every Boat, plying or let out for hire, 12 feet and over.....	5	00	"
For every lighter and scow under seven tons, plying or let out for hire.....	6	00	"
(For every additional ton above seven tons) ...	0	25	"

ROAD TOLLS,

Levied under Proclamation dated 15th October, 1860.

Road tolls.

For every 50 lbs. of goods carried inwards from Yale or Douglas, by land or water; and from Hope by land	\$	cts.
		25

Also under Proclamation of 18th August, 1862.

For every Pound of Goods carried along the road from Lytton to Alexandria	0	1
For every Head of Cattle	0	25
For every Pound of Goods carried along the road from Lillouet to Alexandria	0	1
For every Head of Cattle	0	25

LAND SALES,

Prices fixed by Land Ordinance, 1870.

Prices of land.

Upset Price of Land per acre	1	00
Upset Price of Town Lots (usual)	100	00

Mining receipts.

MINING RECEIPTS,

Levied under Gold Mining Ordinance, 1867.

Free Miners' Certificate, 1 year.....	5 00
do do 3 do	15 00
Record of Claim, or any other mining matter.....	2 50
Search of Records	1 00
Copy of Records	1 25
Grant of Flume Privileges	125 00
Registration of Flume	25 00
Rent of Grant for Flume, for each quarter mile per annum	12 50
Grant of Drain Privileges.....	125 00
Registration of Drain	5 00
Registration where tolls are collected by Drain Co.	25 00
Rent of Grant when tolls are collected, each quarter mile per annum.....	25 00
Filing Declaratory Statement (Joint Stock)	2 50
Notice of Abandonment	1 00
Lease of Mining Ground	125 00
Grant of Water-ditch exceeding 300 inches.....	125 00
Rent of Water for every 50 inches per annum (if sold, an average day's receipt once a month)...	5 00
Inspecting Certificate in re Water Privileges	1 00

Licenses.

LICENSES,

Collected under authority of Licenses Ordinance, 1867.

- (a) By each Person vending Spirituous or Fermented Liquors, by retail; for each House or Place in the colony where such vending is carried on, if in a town of not less than fifty inhabitants (for every six months).....100 00
- (b) Where such retail vending is carried on in a rural district not forming part of a town (for every six months) 30 00 |

(c) By each Person not having a Retail License as above, and vending spirituous and fermented liquors by wholesale; that is to say, in quantities of not less than two gallons, for each house or place in the colony (for every six months) 25 00 |

(d) By each Person keeping a Saloon or Building where a Billiard Table is used for hire or profit (for each table for every six months) 5 00 |

(e) By each Person keeping and letting for hire any Bowling Alley or Rifle Gallery; for each bowling alley or rifle gallery (for every six months) 5 00 |

(f) By every person keeping a Dance House (for every six months) 100 00 |

- (g) By every person selling Opium, except chemists and druggists using the same in the preparation of prescriptions of medical practitioners (for every six months) 50 00
- (h) For every person carrying on the business of a wholesale, or of a wholesale and a retail Merchant or Trader (for every six months)... 50 00
 For every retail Trader (for every six months) 5 00
 Such two last mentioned licenses to enable the person paying the same to change his place of abode or business at pleasure, but not to carry on business at two places at a time under one license.
- (i) By every person, not having a Free Miner's Certificate, engaged in Mining for Gold, whether on his own account or for hire; such payment to include a Free Miner's Certificate (for one year)..... 5 00
- (j) By every person owning a Pack Train of more than six animals, Freight Waggon, Stage Coach or Omnibus, used in transporting goods for profit or hire, a distance beyond ten miles from any town, and not paying a Merchant's or Trader's License (for every six months) 5 00
2. By every person owning a Pack Train of less than six animals, Dray, Waggon, or Omnibus used in transporting goods and passengers, for profit or hire, within a distance of ten miles from any town, and not paying a Merchant's or Trader's License (for every six months) ... 2 50
3. By every Livery Stable Keeper not paying Trading License (for every six months) 10 00
4. By every person following the calling of Cattle Drover in the colony (for every six months)... 50 00
- (k) By every person carrying on, on his own account, the business of a Banker, at one place of business (for one year).....400 00
 For each other place of business in the colony (for one year)100 00
- (l) By every person practising as a Barrister-at-Law, Attorney-at-Law, or Solicitor in the said colony (for one year) 50 00
- (m) By every person following the occupation of Conveyancer, or Land Agent, or both (for every six months)..... 25 00
- (n) By every Auctioneer (not being a government officer, selling by auction government property) in addition to any other license in this schedule (for every six months)..... 50 00
 And $1\frac{1}{2}$ per cent on returns of sales, exclusive of sale of real estate.
- (o) By every person occupying any crown lands, by making any erections thereon, and carrying on any trade upon the same, in addition to the duties above charged, and for the use of the land so occupied by him (for every month) 2 50

Duties of
excise.

DUTIES OF EXCISE,

Collected under Excise Ordinance, 1867.

Distillers' License (per annum).....	25 00
For each gallon distilled not exceeding proof by Sykes' Hydrometer.....	1 00
And so on in proportion to strength above proof, and to quantity.	

Assay fees.

ASSAY FEES,

Under Authority of the Governor.

Assay of Gold at New Westminster, $\frac{1}{4}$ of 1%.	
do Cariboo, $\frac{1}{4}$ of 1%.	
Assay of Quartz Specimen	10 00
Mineral Analysis	10 00

Medical registra-
tion fees.

MEDICAL REGISTRATION FEES,

Levied under "Medical Registration Ordinance, 1867.

Registering a Practitioner	10 00
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Land sales and
Fees.

MINERAL LAND SALES AND FEES.

Coal Lands, price of (under authority of Mineral Ordinance, 1869).

Up to 1,000 acres, per acre	5 00
If, however, \$10,000 has been beneficially expended on a mine, free grant of 100 acres may be made by the Government to the company.	

Mineral Lands, price of.

3 chains by 2 chains, with cost of survey	100 00
30 do 6 do (Company of not less than ten persons).....	250 00
Upset price may be remitted if licensee or company have expended respectively \$1,000 or \$5,000 on their grant.	

Fees.

Record of application for a Mining License, or for a renewal thereof	5 00
Record of every grant of a Mining License, or pro- longation thereof.....	5 00
Record of every crown grant	25 00
Record of every other matter under the ordinance	2 50

Taxes paid
into public
treasury.

The whole of the above fees, taxes, &c., are paid by the respective recipients into the public treasury for the use of the colony.

APPENDIX PP.

INLAND REVENUE OF BRITISH COLUMBIA,
For 10 years, ending 1870, including Customs Duties, and Port and Harbor Dues.

Inland
Revenue of
Columbia.

Year.	Receipts from Customs.	Total Revenue.
1861.....	£39,280 16 7	£60,656 6 11
1862.....	£61,489 4 10	£89,359 8 3
1863.....	£70,639 2 11	£111,111 16 0
1864.....	£73,358 2 0	£104,865 4 1
1865.....	£74,003 13 6	£121,958 9 9
1866.....	\$224,239 61	\$434,018 39
1867.....	\$258,354 27	\$486,521 45
1868.....	\$369,447 45	\$585,610 56
1869.....	\$344,577 34	\$528,494 23
1870.....	\$314,028 18	\$495,352 61

APPENDIX QQ.

AN ORDINANCE TO REGULATE EXCISE IN ALL PARTS OF THE COLONY.

[2nd April, 1867.]

	Whereas it is expedient to assimilate the Law of Excise in all parts of the Colony ;
Preamble.	Be it enacted by the Governor of British Columbia, with the advice and consent of the Legislative Council thereof, as follows :
Repeals former Acts.	I. The British Columbian "Distillers' Excise Act, 1861," and "The Distillers' Ordinance, 1865," are hereby repealed, but such repeal shall not affect any rights acquired or penalties or liabilities incurred under such Act or Ordinance, but the same shall be respectively held enforceable and recoverable as if such repeal had not taken place.
Distillers to take out a license.	II. No person, other than a person licensed in the manner hereinafter provided, shall act as a Distiller in British Columbia, or shall distil, manufacture, rectify, or make therein any Spirits from vegetable or saccharine matter, under a penalty of Fifty Dollars for each day on which any such offence is committed, and on pain also of forfeiting, over and above the penalty aforesaid, all Spirits distilled, brewed, manufactured, or made in contravention to this Ordinance, and every still, mash-tub, fermenting-tun, or other vessel, machinery, or utensil of any kind used by him or in his possession, or on his premises.
Definition of a distillery.	III. Any establishment or place used for the rectifying of Spirits, by any process, shall be deemed a Distillery within the meaning of this Ordinance.
License to be for one year at a place certain.	IV. Every Stipendiary Magistrate in British Columbia may issue a License to act as a Distiller in some certain premises situate at some certain place, to be approved by such Magistrate, within such Magistrate's District, and to be described in the license, to any person or partnership of persons requiring the same, and being residents or having his or their place of business in such district, and having previously complied with the requirements of this Ordinance in that behalf ; and each such license shall remain in force for one year from the date thereof, and no longer.
License fee	V. The party in whose favor a license to act as Distiller is granted shall, on requiring such license, pay to the Magistrate issuing the same the sum of Twenty-five Dollars as a duty to Her Majesty upon such license.
Application for license to be signed by applicant.	VI. No license to act as a Distiller shall be granted to any party except on a written requisition addressed to the Magistrate and signed by the party requiring such license, or, if it be required by a partnership, then by one of the partners.
Security to the extent of \$1,000 to be taken by bond with sureties.	VII. No such license shall be granted to any party until such party has jointly and severally, with two good and sufficient sureties to the satisfaction of the Magistrate issuing the license, entered into a bond to Her Majesty, Her Heirs and Successors, in the sum of One Thousand Dollars, and such bond shall be taken before the said Magistrate, and shall be conditioned for the rendering of all accounts, and the payment of all duties and penalties which the party to whom the license is to be granted will become liable to render or pay under the provisions of this Ordinance, and that such party will

faithfully comply with the requirements thereof, according to their true intent and meaning, as well with regard to such accounts, duties and penalties as to all other matters and things provided by this Ordinance whatsoever.

VIII. The bond aforesaid shall remain in force as long as any duties upon any Spirits distilled, manufactured, or made, while the license to which the bond relates is in force, or any penalty incurred during the said time by any breach of the conditions of the bond, remain due and unpaid by the party to whom such license was granted.

IX. Whenever any new license is granted to any party, a new bond shall likewise be entered into with reference to such new license.

X. A new bond shall also be given whenever, during the period for which the license to which it relates is in force, either of the sureties dies, becomes insolvent, or removes permanently out of the Colony; in any of which cases the license shall become void from the time the party is required by the Magistrate to enter into a new bond until the time when such new bond is given, during which time the party neglecting to enter into such new bond shall be held to be without a license.

XI. Every party licensed as a Distiller shall have his name and calling as such inscribed in legible characters and exposed on some conspicuous part of the front of the building or premises in which such calling is exercised, under a penalty not exceeding Fifty Dollars for each day on which he exercises such calling without complying with the requirements of this Section.

XII. All such Spirits as aforesaid lawfully distilled, manufactured or made within the Colony shall be respectively subject to the duty to Her Majesty hereinafter mentioned, that is to say: on every gallon, imperial measure, of Spirits of any kind, not exceeding the strength of proof by Syke'srometer, and so in proportion for any greater strength than the strength of, and for any greater or less quantity than a gallon, One Dollar; and such duty shall be computed and charged upon the quantity of Spirits to be ascertained after the first process of rectification, and shall be paid by the party distilling, manufacturing, or making such Spirits, to the Magistrate, in the manner hereinafter mentioned.

XIII. Every person or party licensed as a Distiller shall keep a book or books (in a form to be approved by the Collector of Customs) and to be open at all reasonable hours to the inspection of any Magistrate, or Customs or Excise Officer, or of any person authorized by a Magistrate to inspect such book, in British Columbia, wherein such Distiller shall enter from day to day the quantities of grain or other vegetable production or other substance put by him into the mash-tub, or otherwise used by him for the purpose of producing Spirits, or otherwise disposed of; and also the quantity of Spirits by him distilled, manufactured, or made, showing the quantity produced at each separate time if there have been any distinct set or sets of operations by reason of which duties have become payable. And for any wilfully false entry, or any wilful neglect to make any entry hereby required, the Distiller shall incur a penalty not exceeding Two Hundred and Fifty Dollars, and the Magistrate, Customs or Excise Officer, or other authorized person, may at all times demand to be shown all the stock of such grain, vegetable production, or other substance as aforesaid, then on the premises mentioned in the license.

XIV. Every party licensed to act as a Distiller and acting as such shall, within ten days after the first day of each of the months in each year, render to the nearest Magistrate a just and true account in writing, extracted from the books to be kept by such person as aforesaid, and signed by such party, or his agent, or chief clerk, showing:

1. The total quantity in gallons of each kind of Spirits (with the strength thereof) on which a duty is payable, by him distilled, manufactured, or made.

Duration of the bond to be until full satisfaction of all accounts, duties, and penalties. New bond with fresh license. New bond on death, insolvency, or bankruptcy of any surety.

Duty of \$1 per Her gallon on spirits.

Book detailing the products used and the spirits obtained by distillation.

Accounts to be rendered to the magistrate.

2. The quantity produced at each separate time, if there have been any distinct set or sets of operations, by reason of which duty became payable.

3. The quantities of each kind of grain or other vegetable production or substance used by such party in his business as a Distiller.

4. And such account shall be attested by the person signing the same by an affidavit in the following form :

"I, _____, do solemnly swear that the account above written, to which I have also subscribed my name, contains a true account of the total quantity of every kind of Spirits or Strong Waters, or Spirituous Liquors, distilled, manufactured, or made by me (or by _____ as the case may be) within the time mentioned in the same account, and on which duty is payable, and of the quantities of each kind respectively, and the strength thereof; and also of the quantities produced at each separate time therein mentioned by a distinct set of operations, and also of the quantities of all grain or other vegetable production or substance consumed by me (or by the said _____) during the same time. So help me God."

Affidavit to be made before the magistrate who may interrogate on affidavit.

XV. Such affidavit shall be made before the said Magistrate, and shall be delivered with such account to the said Magistrate, who may put to the person making it such questions as he may deem necessary to the elucidation and full understanding of the account, and for ascertaining whether such person has had the means of knowing the same to be correct, and may require his answers to be sworn to before him, and may reject the account if such account or the answers so given are insufficient according to the true intent and meaning of this Ordinance.

Wilfully false statement to be perjury.

XVI. And any wilfully false statement in any affidavit or answer to a question required by this Ordinance, shall be deemed wilful and corrupt perjury, and punishable accordingly.

Sums due to be paid in to the magistrate.

XVII. Every licensed Distiller shall, at the time of rendering such account as aforesaid to the Magistrate, pay over to that officer the amount of duties which by such account appear to be payable, other than such duties which may be payable in respect of Spirits deposited in a bonded or certified warehouse as hereinafter mentioned.

Penalty for neglect.

XVIII. If any licensed Distiller refuses or neglects to render such account or to pay over such duties as aforesaid, according to the true intent and meaning of this Ordinance, he shall by such refusal or neglect in either case incur a penalty not exceeding Two Hundred and Fifty Dollars, and the Magistrate may also at his discretion cause a notice to be inserted in one or more of the local papers, or the *Government Gazette*, declaring the party so refusing or neglecting to have forfeited his license as a Distiller, and such license shall be forfeited accordingly, and shall be null and void from and after the date of such notice, nor shall any new license be granted to the defaulter until after the debt and penalty aforesaid have been paid and satisfied.

Bonded and certified warehouses.

XIX. Any Spirits subject to duty under this Ordinance may be deposited in a bonded or certified warehouse as hereinafter mentioned.

Certified warehouse.

XX. A certified warehouse shall be some place approved by the Magistrate within his district for the storage of Spirits on which the duty is unpaid.

Magistrate to have the key and may enter at all hours.

XXI. The key to the certified warehouse shall be kept by the said Magistrate, and he or his agents may at any time, either in the day or night, enter therein and inspect the Spirits therein contained, and may test and examine the same, and take such other steps for the protection of the Revenue as in his absolute discretion he may think proper.

Magistrate or person by him nominated to be present at

XXII. No Spirits shall be removed from a certified warehouse after having been placed therein without the presence either of the Magistrate or of some person nominated by him in that behalf, and the amount of duty

after the rate aforesaid shall be payable on the Spirits so removed on the next monthly settlement of account.

XXIII. Any person entering into a certified warehouse without the consent of the Magistrate shall be liable to a penalty not exceeding Two Hundred and Fifty Dollars, and any person removing any Spirits from a certified warehouse except in the presence of the Magistrate or person nominated by him shall be liable to a penalty not exceeding Five Hundred Dollars.

XXIV. The Collector of Customs may, with the approval of the Governor, make such regulations as to him may seem necessary relative to the warehousing of Spirits under this Ordinance.

XXV. Every licensed Distiller shall, on being thereunto required by a Magistrate or by any person authorized by a Magistrate, produce to him at any reasonable time and hour, and shall allow him to take copies and extracts from such books and accounts as are requisite to enable him to verify any account rendered as aforesaid, and shall at all times and hours allow the Magistrate, or any person employed by him, free access to the buildings and premises in which such Distiller exercises his calling as such, under a penalty of Twenty-five Dollars for each neglect or refusal to comply with the requirements of this Section.

XXVI. Except that no Magistrate or other person shall require any such book or account to be produced to him elsewhere than at the place where such Distiller carries on his business as such.

XXVII. No Distiller shall work his Distillery at any time unless he has given at least twenty-four hours previous notice in writing to the nearest Magistrate of his intention to work the same at such time, and such notice shall not extend to a longer period than thirty days from the delivery thereof to the said Magistrate.

XXVIII. Any use made of any still, mash-tub, or fermenting-tun, for the purpose of distillation, mashing, or fermentation, shall be deemed to be a working of the Distillery and an acting as a Distiller within the meaning of this Ordinance.

XXIX. If any Distiller works his Distillery at any time for which he has not given notice of his intention to work the same, he shall for each day on which he so works such Distillery incur the same penalty and forfeiture as if he had worked the same without a license.

XXX. Every licensed Distiller shall at all times furnish the Magistrate or his assistant, or other authorized person, with lights, ladders, measures, and other things requisite to enable him properly to examine, inspect, measure, or gauge any still, auxiliary vessel, mash-tub, fermenting-tun, or other vessel, or any grain, vegetable, or other substance or matter as aforesaid on the premises of such Distiller or any part of such premises, under a penalty of Twenty-five Dollars for any refusal or neglect to comply with the requirements of this Section.

XXXI. The Magistrate and any person or persons acting under him or by his directions may, at any hour of the day or night, enter any premises referred to in any license granted under this Ordinance, and may make all necessary enquiries and searches therein for the purpose of ensuring the execution of this Ordinance according to its true intent and meaning, subject to the restrictions hereinbefore mentioned.

XXXII. It shall be lawful for any Distiller to bond any Spirits manufactured under this Ordinance in this Colony, and to export the same in bond from the Colony, nevertheless with, under, and subject to all such regulations and restrictions for the protection of the Revenue, as shall from time to time be prescribed by the Collector of Customs in that behalf.

XXXIII. Any duties payable under this Ordinance shall be recoverable at any time after the same ought to have been accounted for and paid,

the removal of spirits from a certified warehouse. Penalty on persons entering a certified warehouse without the consent of the magistrate. Collector of Customs may make regulations with regard to warehousing. Magistrate may inspect books.

Place of production to be on the business premises. Notice to magistrate previously to working the distillery.

Meaning of working a distillery.

Penalty for working without a notice.

Distiller to furnish lights, ladders, measures, &c. for the purpose of inspection.

Magistrate may enter.

Spirits may be bonded in the colony, and exported in bond under certain restrictions. Recovery of duties.

whether an account of the quantity of Spirits as aforesaid on which they are payable has or has not been rendered as aforesaid; but in the case last mentioned the party by whom such duties are payable shall incur a penalty not exceeding the sum of Two Hundred and Fifty Dollars and the amount of duties, for his neglect to render the accounts relative to the same as hereinbefore required, in addition to any other penalty incurred by him by such neglect; and all such duties shall be recoverable with full costs of suit in favor of Her Majesty.

Payment of
penalty not to
affect the pay-
ment of duties.

XXXIV. The payment of any penalty imposed by this Ordinance shall not discharge the party paying the same, or his sureties, from the obligation to pay all duties due by such parties, and the same shall be paid and may be recovered as if such penalty had not been paid or incurred, and all such duties shall be recoverable with full costs of suit, as a debt due to Her Majesty.

Stock in trade
and utensils,
&c., to be
liable for
duties.

XXXV. And without any prejudice to the liability of any other property of the debtor or his sureties, the stock in trade, stills and mash-tubs, fermenting-tuns, and other machinery and utensils, whether so fixed as to form part of the real or immovable property or not, which are on the premises mentioned in the license at the time any such duties become due, shall be liable for such duties and for any penalty incurred by the Distiller on whose premises they are, by special privilege and lien in favor of the Crown; and may be seized, and sold in satisfaction of the same under any Warrant of Distress or Writ of Execution and removed by the purchaser, to whomsoever the same might otherwise belong, or into or in whose lands or possession soever the same have passed or are found, and notwithstanding any claim to the same, or privilege, or lien thereon in favor of any other person or party whomsoever; and if the same be forfeited under the provisions of this Ordinance for any contravention thereof, they may be seized by the Magistrate or any person acting under his authority, at any time after the commission of the offence for which they are forfeited, and marked, detained, or secured until condemned or released by competent authority, and shall not, while under seizure, be used by the offenders, and if condemned they shall be removed or sold or otherwise dealt with in such manner as the Magistrate shall direct.

Summary
procedure.

XXXVI. The penalty or forfeiture incurred for any offence against the provisions of this Ordinance, and the duties payable hereunder may be sued for and recovered before the Magistrate of the District in which the offence was committed or the premises used as a Distillery is situate; and any such penalty or duty may, if not forthwith paid, be levied by distress and sale of the goods and chattels of the offender, under the warrant of such Magistrate; or the said Magistrate may in his discretion commit the offender to Gaol, until the penalty with the costs of prosecution shall be paid.

General
jurisdiction.

XXXVII. Provided always that any pecuniary penalty or any forfeiture imposed by this Ordinance, whatever may be the amount thereof, may be sued for and recovered with costs, on the oath of any competent witness, in any Court having Civil Jurisdiction to the amount of such penalty or forfeiture, by Her Majesty's Attorney General, or by any other person or officer thereunto authorized by the proper authority; and such penalty or forfeiture shall belong to Her Majesty.

Saving of per-
sons who may
seize with
probable
cause.

XXXVIII. No person making any seizure under this Ordinance shall be liable to damages if such seizure be declared not valid, providing the Court or Magistrate declaring it not valid, certify that there was probable cause for making it.

Penalty on
witnesses re-
fusing to ap-
pear and
answer.

XXXIX. Any person refusing or neglecting to appear before any Magistrate or any Court to give evidence when summoned, concerning any alleged offence against the provisions of this Ordinance, shall for such refusal or neglect incur a penalty of not more than Two Hundred and Fifty Dollars,

to be recovered in the manner hereinbefore provided for the recovery of other penalties of like amount.

XL. When any act, deed, matter, or thing is required or permitted to be done, performed, or executed by any Public Officer by virtue of his Office, the same may be done, performed or executed, by any person for the time being lawfully acting or empowered to act in such office, and in particular where any act, deed, matter, or thing is required or required to be done, performed, or executed by the Governor, the same may be done, performed, and executed by the person for the time being lawfully administering the Government.

Powers of temporary public officers.

XLI. Whenever in describing or referring to any person or party, matter, or thing, any word importing the masculine gender or singular number is used, the same shall be understood to include and shall be applicable to several persons and parties as well as one person or party, and females as well as males, and bodies corporate as well as individuals, and several matters and things as well as one matter or thing, unless it otherwise be provided or there be something in the subject or context repugnant to such construction.

Interpretation clause.

XLII. This Ordinance may be cited for all purposes as "The Excise Short title. Ordinance, 1867."

APPENDIX RR.

EXTRACT FROM BLUE BOOK, 1870.

Savings banks

SAVINGS BANKS.

County, District	Parish.	No. of Savings Banks.	No. of Depositors in Savings Banks.	Freeholders.	Persons paying direct Taxes.	No. of Emigrants.	No. of Immigrants.
Victoria.....		1	265	1650	1413	22	.....
New Westminster.....		1	56				.....
Cariboo.....		1	10	180	1536		.....
Nanaimo.....		1	23	100	234	88	112
Comox.....				10	64		.....
Yale.....		1	2				.....

Course of exchange

COURSE OF EXCHANGE.

On England.

Bills at Sight	\$5 15 per £1.
„ 30 days	5 10
„ 60 days	5 00

On New York.

4 to 5 per cent, premium.

On San Francisco.

1 per cent, premium.

Coin in circulation.

COINS.

Sterling Coins in Circulation.

The Sovereign current at	\$4 85
Half Sovereign	2 42½
Half Crown	0 62½
Florin	0 37½
Shilling	0 25
Sixpence	0 12½
3d. piece	0 06

United States Coins in Circulation.

Gold	\$20 piece at par.
„ Eagle	„
„	\$5
„	\$2½
Silver	\$1
„	„
„	\$½
„	\$¼
„ Dime	„

APPENDIX SS.

AN ORDINANCE ENTITLED THE "GAME ORDINANCE, 1870."

[20th April, 1870.]

WHEREAS it is expedient to protect Game of various descriptions from Preamble,
being killed out of season, and to assimilate the Law affecting such
matters in all parts of the Colony of British Columbia;

Be it enacted by the Governor of British Columbia, with the advice and
consent of the Legislative Council thereof, as follows:—

1. The "Game Ordinance, 1869," is hereby repealed; but such repeal Repeals Ordinance of 1869.
shall not cause to revive any Ordinance or Act repealed by the Ordinance hereby repealed.

2. From and after the passage of this Ordinance, it shall be unlawful When unlaw-
ful to have
Game in pos-
session.
for any person or persons to have Game in his, her, or their possession in the
City of Victoria, or of New Westminster, or in the Town of Nanaimo, or of
Esquimalt, or within the distance of one mile from any of the said Cities or
Towns, or on board of any Steam-boat, between the First day of March and
the Tenth day of August, in any year, or Venison between the first day of
February and the first day of August in any year; or to collect or destroy the
Eggs of any Grouse, Quail, Prairie-fowl, Pheasant, or Partridge.

3. It shall be lawful for any Justice of the Peace, upon information on Empowers
Justices of
Peace to make
search.
oath, that there is probable cause to suspect that a breach of the provisions
of this Ordinance has been committed, or that Game, Venison, or the Eggs
of Grouse, Quail, Prairie-fowl, Pheasant, or Partridge be or is likely to be on
any premises, or on or about any person or persons within the City of
Victoria, or of New Westminster, or within the Town of Nanaimo, or of
Esquimalt, or within the distance of one mile from any of the said Cities
or Towns, or on board of any Steamboat in the Harbor of Victoria,
Esquimalt, or Nanaimo, by warrant under his hand and seal, to authorize
and empower any Constable or Police Officer to enter and search such
premises and to search such person or persons, at any time and to seize all
Game, Venison, and Eggs aforesaid, wherever found; provided, that no such
warrant shall continue in force after the ninth day of August in the year
in which it shall have been issued.

4. In the construction of this Ordinance, or of any information to be Interpretation
laid, or any warrant to be issued under the provisions herein contained, the
term "Game" shall be held to mean dead Grouse, Quail, Prairie-fowl,
Pheasant, Partridge, Robin, Lark, Thrush, or Wild Pigeon; and the term
"Venison" shall be held to mean the carcass or any part of a dead Deer or
Elk, or of the young thereof respectively.

5. Every infraction or evasion of this Ordinance shall be punishable, Declares
penalties.
upon conviction, in a summary manner, before any Justice of the Peace in
British Columbia, by a fine not exceeding Fifty Dollars, for each separate
offence, to be levied by distress, or in default of payment by imprisonment
for any term not exceeding one month, at the direction of the Justice of the
Peace convicting.

Information.

6. Any person giving information leading to the conviction of any person under this Ordinance, shall be entitled to receive one half of any pecuniary penalty inflicted under this Ordinance.

Conviction not to be invalid.

7. In case of any summary conviction under this Ordinance, no warrant of commitment upon a conviction shall be held to be invalid by reason of any defect therein, if it be therein alleged that the person offending has been convicted, and there be a good and valid conviction to sustain the same.

Limits application of Ordinance.

8. This Ordinance shall not apply to Elk, Deer, or the young thereof, respectively, killed before the First day of February, in any year; or to Grouse, Quail, Prairie-fowl, Pheasant, or Partridge, Robin, Lark, Thrush, or Wild pigeon killed, or Eggs collected, before the First day of March, in any year.

Short Title.

9. This Ordinance may be cited for all purposes as the "Game Ordinance 1870."

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pecuniary

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Thrush, or
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Ordinance

APPENDIX TT.

RELINQUISHMENT,

By the Hudson's Bay Company to Her Majesty the Queen of Great Britain
of their rights on Vancouver Island.

This Indenture made this third day of April, one thousand eight hundred and sixty-seven, between the Governor and Company of Adventurers of England, trading into Hudson's Bay, who with their successors, are hereinafter called "the said Company," of the one part, and Her Most Gracious Majesty Queen Victoria, of the other part : Whereas, previous to January, one thousand eight hundred and forty-nine, the said Company had occupied certain portions of land in Vancouver Island, for the purpose of carrying on their trading and commercial operations under a Royal Charter of Incorporation, granted to them by His late Majesty King Charles the Second, and dated the second day of May, in the twenty-second year of His reign ; and, whereas, by a Royal License, bearing date the thirteenth day of May, one thousand eight hundred and thirty-eight, the said Company were invested for the full period of twenty-one years from the date thereof with the sole and exclusive privilege of trading with the Indians in such part of North America to the Northward and Westward of the Territories of the United States as did not form part of any of Her said Majesty's Provinces in North America, or of any Territories belonging to the United States, or to any European Government, State or Power, subject nevertheless as therein mentioned ; And, whereas, by Letters Patent, dated the thirteenth day of January, one thousand eight hundred and forty-nine, Her said Majesty was pleased to grant unto the said Company, and their successors, the said Vancouver Island, together with all Royalties of the Seas, upon the Coasts within the limits therein mentioned, and all mines Royal thereto belonging, to be holden of Her said Majesty, Her Heirs and Successors, in free and common socage at the yearly rent of seven shillings, and upon the condition and for the purpose of colonizing the said Island as therein mentioned : And in the said Letters Patent Her said Majesty reserved to Herself and Her Successors full power, at the expiration of the said Company's hereinbefore recited License for the exclusive privilege of trading with the Indians, to repurchase and take from the said Company, the said Vancouver Island, and premises thereby granted, on payment by Her said Majesty to the said Company, of the sum or sums of money theretofore laid out and expended by them in and upon the said Island and premises, and of the value of their establishments, property and effects then being thereon : And, whereas, after the said hereinbefore recited License, of the thirteenth day of May, one thousand eight hundred and thirty-eight, had come to an end, it seemed fit to Her said Majesty to exercise the power reserved to Her in the said Letters Patent of re-purchasing the said Vancouver Island, whereupon an investigation of accounts and a negotiation with the said Company took place, and finally the said Company agreed to accept the sum of fifty-seven thousand five hundred pounds, in full discharge of all their claims in respect of the said Island under the said Letters Patent, of the thirteenth day of January, one thousand eight hundred and forty-nine. And, whereas, the said sum of fifty-seven thousand five hundred pounds hath accordingly been paid to the said Company, by or

Indenture of
relinquishment

Consideration
for relinquish-
ment.

Certain lands
retained by
the company.

Lands in
Victoria.

Uplands
Farm.

North Dairy
Farm.

Spring and
land adjoining.

Fort property.

on behalf of Her said Majesty, in two instalments of twenty-five thousand pounds, and thirty-two thousand five hundred pounds, on the twenty-ninth day of June, one thousand eight hundred and sixty, and the sixth day of October, one thousand eight hundred and sixty two, as the said Company do hereby admit and acknowledge: And, whereas, the said Company have agreed to re-convey to Her said Majesty, Her Heirs and Successors, the said Vancouver Island, and premises, except such portions thereof as may have been sold by the said Company previous to the first day of January, one thousand eight hundred and sixty-two, and except also such other portions thereof as are hereinafter mentioned, which last mentioned portions are with the assent of Her said Majesty to remain the property of the said Company and their successors: Now this Indenture witnesseth that in pursuance of such agreement, and in consideration of the sum of fifty-seven thousand five hundred pounds, so paid by or on behalf of Her said Majesty to the said Company as aforesaid, in full discharge of all the claims of the said Company in respect of all sums expended by them in and upon the said Vancouver Island and premises, and of the value of their establishment, property and effects now being thereon, and of all other their claims under the said Letters Patent, of the thirteenth day of January, one thousand eight hundred and forty-nine, in respect of the said Island, they the said Company do for themselves and their successors by these presents, grant, convey, yield up, and surrender unto Her said Majesty, Her Heirs and Successors, all that the said Island called Vancouver Island, together with all Royalties of the Seas, upon the Coasts thereof, and all mines Royal, and all rights, members, and appurtenances whatsoever to the said Island, and hereditaments belonging, and which were conveyed or passed to, and are now vested in the said Company, under or by virtue of the said hereinbefore recited Letters Patent, of the thirteenth day of January, one thousand eight hundred and forty-nine, or otherwise, howsoever, and also the said Letters Patent of the thirteenth day of January, one thousand eight hundred and forty-nine, and all the estate, right, title, interest and property whatsoever of the said Company, in to and out of the same premises; except and always reserved out of the grant and surrender hereby made as follows, that is to say:—

1. Certain pieces or parcels of land in the Town of Victoria, containing in the whole twenty-two acres and forty-one hundredth parts of an acre, and known as the Church Reserve, which lands have lately been conveyed by the said Company, to Trustees for certain ecclesiastical and scholastic purposes. And also all land situate in the Victoria District, which may have been sold by the said Company previous to the first day of January, one thousand eight hundred and sixty-two, together with the water frontages and spaces between high and low water mark abutting on any portions of such lands, provided such water frontages and spaces were also sold by the said Company, before the said first day of January, one thousand eight hundred and sixty-two, but not otherwise.

2. The farm known as the Uplands Farm, containing about one thousand one hundred and forty-four acres, and being section thirty-one on the Colonial official plan, of the said Victoria District.

3. The farm known as the North Dairy Farm, containing about four hundred and sixty acres, being section thirty-two on the said official plan.

4. The old spring and adjoining land (except one well set apart and appropriated to public use), and marked 68, 69, 70, 71, 72, $\frac{73}{2078}$, in section eighteen of the plan of the Town of Victoria, heretofore delivered to the Colonial Government by the said Company.

5. All that portion of land in the said Victoria District, heretofore known as the Fort Property, including the site of the fort and the adjoining land yet unsold, with water frontage and foreshore immediately in front of the fort,

but not including the several lots marked respectively, H, Harbor Master's Lot No. 15, block 70, situated at the foot of Broughton Street; V, Police Barracks, and Nos. 1,603, 1,605 and 1,607, Post Office colored green, on the said last mentioned plan, on which lots the Harbor Master's office, the Police Barracks and the Post office, are respectively situated, and which lots are hereby (among other things) granted and conveyed to Her said Majesty and Her Successors.

6. Eight lots or parcels of land numbered on the said last mentioned plan 3, 4, 5, 8, 10, 14, 17 and 20, containing in the whole fifty acres, more or less, recently selected by the said Company, out of a certain farm lying to the south and west of James Bay, and heretofore known as "Beckley" or "Dutnells" Farm: All which said excepted lands (save the lands comprised under the first head of exceptions), are and are to remain the absolute property of the said Company, and their successors, freed and discharged from any rent, trusts or conditions contained in the said Letters Patent, of the thirteenth day of January, one thousand eight hundred and forty-nine, and, as regards the lands comprised under the foregoing heads of exceptions, numbered 4, 5 and 6, are colored pink and marked on the several blocks and lots into which the same are divided with the letters H. B. C. on the map or plan thereof hereunto annexed.*

To have and to hold the said Vancouver Island, and all and singular other, the hereditaments and premises hereinbefore granted, conveyed and surrendered or intended so to be with their appurtenances (except as aforesaid) unto Her said Majesty, Her Heirs and Successors, as of Her former estate and Dominion, therein freed and absolutely discharged from any title, rights or claims of the said Company and their successors and the said Company do hereby for themselves and their successors covenant with Her said Majesty, Her Heirs and Successors in manner following, that is to say:—that they the said Company have not at any time heretofore made, done, committed, or executed, or willingly suffered any act, deed, matter or thing whatsoever whereby the said hereditaments and premises hereby granted, conveyed and surrendered, or intended so to be, or any part thereof, are or is in any wise charged, affected or incumbered, or by reason whereof the said Company are in anywise prevented from granting the said hereditaments and premises in manner aforesaid.

And further that they the said Company and their successors will at any time or times hereafter upon the request and at the cost of Her said Majesty, Her Heirs and Successors, make, do and execute or cause to be made done and executed all such further and other lawful acts, deeds and assurances for more perfectly and absolutely conveying the said Island, hereditaments and premises with their appurtenances (except as aforesaid) unto Her said Majesty, Her Heirs and Successors, as Her said Majesty, Her Heirs and Successors shall require.

IN WITNESS WHEREOF the said Governor and Company of Adventurers of England trading into Hudson's Bay have caused their corporate seal to be hereunto affixed, and Thomas William Clinton Murdoch, and Stephen Walcott, Esquires, Her Majesty's Emigration Commissioners, have hereunto set their hands and seals, on behalf of Her Majesty, the day and year first above written.

By order of the Governor, Deputy Governor, and Committee of the said Company.

[L.S.]
[L.S.]

(Signed,)

W. G. SMITH, Secretary.

T. W. C. MURDOCH.

S. WALCOTT.

* This map or plan is not printed with this report, but is of record in the Department of Public Works.

The corporate seal of the within named company was hereunto affixed
in the presence of

(Signed,) W. ARNIT,
Of Hudson's Bay House, London,
Gentleman.

Signed, sealed and delivered by the within named Thomas William
Clinton Murdoch, and Stephen Walcott, as such Emigration Commissioners,
as within mentioned, in the presence of

(Signed,) CHRISTOPHER SIMNER CARTWRIGHT,
Clerk at the Government Emigration Board,
8 Park Street, Westminster.

APPENDIX UU.

COPY OF THE TREATY BETWEEN HER MAJESTY AND
THE UNITED STATES OF AMERICA,

For the Settlement of the Oregon Boundary, signed at Washington, June 15th, 1846. Ratifications exchanged at London, July 17th, 1846. Presented to both Houses of Parliament by Command of Her Majesty, 1846.

Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and the United States of America, deeming it to be desirable for the future welfare of both Countries, that the state of doubt and uncertainty which has hitherto prevailed respecting the Sovereignty and Government of the Territory on the North-West Coast of America, lying westward of the Rocky or Stony Mountains, should be finally terminated by an amicable compromise of the rights mutually asserted by the two parties over the said Territory, have respectively named Plenipotentiaries to treat and agree concerning the terms of such settlement, that is to say :—

Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, has, on Her part, appointed the Right Honorable Richard Pakenham a Member of Her Majesty's Most Honorable Privy Council, and Her Majesty's Envoy Extraordinary and Minister Plenipotentiary to the United States; and the President of the United States of America, has, on his part, furnished with full powers, James Buchanan, Secretary of State of the United States; who, after having communicated to each other their respective full powers, found in good and due form, have agreed upon and concluded the following Articles :—

ARTICLE I.

From the point on the forty-ninth parallel of north latitude, where the boundary laid down in existing Treaties and Conventions between Great Britain and the United States terminates, the line of boundary between the territories of Her Britannic Majesty and those of the United States, shall be continued westward along the said forty-ninth parallel of north latitude, to the middle of the Channel which separates the Continent from Vancouver's Island; and thence southerly, through the middle of the said Channel, and of Fuca's Straits, to the Pacific Ocean: Provided, however, that the navigation of the whole of the said Channel and Straits, south of the forty-ninth parallel of north latitude, remain free and open to both parties.

ARTICLE II.

From the point at which the forty-ninth parallel of north latitude shall be found to intersect the great northern branch of the Columbia River, the navigation of the said branch shall be free and open to the Hudson's Bay Company, and to all British subjects trading with the same, to the point where the said branch meets the main stream of the Columbia; and thence down the said main stream to the ocean, with free access into and through

the said river or rivers ; it being understood that all the usual portages along the line thus described, shall in like manner be free and open.

In navigating the said river or rivers, British subjects, with their goods and produce, shall be treated on the same footing as citizens of the United States ; it being, however, always understood that nothing in this Article shall be construed as preventing or intended to prevent the Government of the United States from making any regulations respecting the navigation of the said river or rivers, not inconsistent with the present Treaty.

ARTICLE III.

Rights of
British sub-
jects to be
respected.

In the future appropriation of the territory south of the forty-ninth parallel of north latitude, as provided in the Article I. of this Treaty, the possessory right of the Hudson's Bay Company, and of all British subjects who may be already in the occupation of land or other property, lawfully acquired, within the said territory, shall be respected.

ARTICLE IV.

Property of
Puget Sound
Agricultural
Society.

The farms, lands, and other property of every description, belonging to the Puget's Sound Agricultural Company, on the north side of the Columbia River, shall be confirmed to the said company. In case, however, the situation of those farms and lands should be considered by the United States to be of public and political importance, and the United States' Government should signify a desire to obtain possession of the whole or of any part thereof, the property so required shall be transferred to the said Government at a proper valuation, to be agreed upon between the parties.

ARTICLE V.

Ratifications
to be ex-
changed.

The present treaty shall be ratified by Her Britannic Majesty, and by the President of the United States, by and with the advice and consent of the Senate thereof ; and the ratifications shall be exchanged at London at the expiration of six months from the date hereof, or sooner if possible.

In witness whereof, the respective Plenipotentiaries have signed the same, and have affixed thereto the Seals of their Arms.

Done at Washington, the fifteenth day of June, in the year of our Lord one thousand eight hundred and forty-six.

RICHARD A. PAKENAM. {L.S.}

JAMES BUCHANAN. {L.S.}

APPENDIX VV.

FORM OF SALE OF PUBLIC LANDS.

Form of sale.

Province of }
 British Columbia. }
 No.

(Coat of Arms.)

Victoria, by the Grace of God, of the United Kingdom of Great Britain and Ireland, and of the Colonies and Dependencies thereof, in Europe, Asia, Africa, America, and Australasia, Queen, Defender of the Faith, and so forth.

To all to whom these presents shall come—Greeting :

Know ye, that we do by these presents for us, Our Heirs and Successors, in consideration of the sum of _____ to us paid, give and grant unto _____ h heirs and assigns all that parcel or lot of land situate _____ and numbered _____ on the Official Plan or Survey of the said _____, in the Province of British Columbia ; To have and to hold the said parcel or lot of land, and all and singular the premises hereby granted with their appurtenances unto the said _____ h heirs and assigns for ever.

Provided, nevertheless, that it shall at all times be lawful for Us, Our Heirs and Successors, or for any person or persons acting in that behalf by Our or Their authority, to resume any part of the said lands which it may be deemed necessary to resume, for making roads, canals, bridges, towing paths, or other works of public utility or convenience, so, nevertheless, that the lands so to be resumed shall not exceed one-twentieth part of the whole of the lands aforesaid, and that no such resumption shall be made of any lands on which any buildings may have been erected, or which may be in use as gardens or otherwise, for the more convenient occupation of any such buildings.

Provided, nevertheless, that it shall at all times be lawful for Us, Our Heirs and Successors, or for any person or persons acting under Our or Their authority, to enter into and upon any part of the said lands, and to raise and get thereout any gold or silver ore which may be thereupon or thereunder situate, and to use and enjoy any and every part of the same land, and of the easements and privileges thereto belonging, for the purpose of such raising and getting, and every other purpose connected therewith, paying in respect of such raising and getting, and use, reasonable compensation.

Provided, nevertheless, that it shall be lawful for any person duly authorized in that behalf by Us, Our Heirs and Successors, to take and occupy such water privileges, and to have and enjoy such rights of carrying water over, through, or under any parts of the hereditaments hereby granted as may be reasonably required for mining purposes in the vicinity of the said hereditaments, paying therefor a reasonable compensation to the aforesaid _____ h heirs or assigns.

In testimony whereof, we have caused these Our Letters to be made patent, and the Great Seal of Our Province of British Columbia to be hereunto affixed. Witness His Honor Joseph William Trutch, Lieutenant Governor of Our Province of British Columbia and its Dependencies, at Our Government House, in Our City of Victoria, this _____ day of _____, in the year of Our Lord One thousand eight hundred and _____, and in the Thirty _____ year of Our Reign.

By Command,

portages along
 with their goods
 of the United
 in this Article
 Government of
 o navigation of
 aty.

the forty-ninth
 this Treaty, the
 British subjects
 property, lawfully

on, belonging to
 of the Columbia
 however, the situ-
 United States to
 tes' Government
 any part thereof,
 Government at a

Majesty, and by
 and consent of
 at London at the
 possible.

signed the same,
 year of our Lord

NAM. { L.S. }

AN. { L.S. }

APPENDIX WW.

A STATEMENT showing the Names, Date of Appointment, Duties, Salary and Position of all the Stipendiary Magistrates in British Columbia, on 19th July, 1871.

Name.	Date of Appointment.	Where Stationed.	Salary.	Duties.	Remarks.
Henry Maynard Ball....	8th June, 1859 ..	Cariboo	\$ 3,400 00	Stipendiary Magistrate, Gold Commissioner, Assistant Commissioner of Lands, Collector of Revenue, and County Court Judge. do do	Receives \$3 a day while absent in Omineca.
Peter O'Reilly	April, 1859	Yale (at present doing duty at Omineca)	3,000 00	do do do do	Receives \$5 a day while at Yale.
Edward Howard Sanders ..	April, 1859	New Westminster ..	3,000 00	Postmaster General, Stipendiary Magistrate, Gold Commissioner, Assistant Commissioner of Lands, Collector of Revenue, County Court Judge, and Coroner	Receives \$5 a day while at Yale.
Arthur Thomas Bushby ..	28th Feb'y., 1859 ..	at present doing duty at Yale	2,425 00	Stipendiary Magistrate, Assistant Commissioner of Lands, Collector of Revenue, County Court Judge, and Coroner.	\$1,704 of Mr. Haynes' Salary is paid for collection of Customs duties at Southern Boundary. Resigned in 1860, and was then appointed Collector of Customs on American frontier. Acts temporarily at Kootenay, in absence of M. Claudet, who acts elsewhere.
Warner Reeve Spalding ..	April, 1859	Nanaimo	2,250 00	Stipendiary Magistrate, Assistant Commissioner of Lands, Collector of Revenue, County Court Judge, and Coroner.	
Augustus F. Pemberton ..	8th July, 1858 ..	Victoria	2,250 00	Stipendiary Magistrate, Collector of Revenue, County Court Judge, and Coroner.	
John Carmichael Haynes ..	23rd Sept., 1860 ..	Kootenay	2,915 50	Stipendiary Magistrate, Collector of Customs, County Court Judge, and Assistant Commissioner of Lands	

CHARLES GOOD,
Colonial Secretary.

APPENDIX XX.

STATEMENT OF JOINT STOCK COMPANIES

Registered under the Joint Stock Companies' Ordinance, 1869, and in existence at the present time.

[September, 1871].

"Bayne's Sound Coal Mining Company, Limited." Capital \$50,000. Joint Stock Companies.
Registered 7th May, 1870.

"British Columbia Investment and Loan Society." Registered 30th August, 1869.

"Beaufort Coal Mining Company, Limited." Capital \$50,000. Registered 18th May, 1871.

"British Columbia Whaling Company, Limited." Capital \$20,000. Registered 25th July, 1870.

"Eureka Silver Mining Company, Limited." Capital \$150,000. Registered 7th September, 1871.

"Victoria Gas Company, Limited." Capital \$50,000. Registered 27th November, 1860.

"Spring Ridge Water Company, Limited." Capital \$50,000. Registered 1st August, 1864.

CHARLES GOOD,
Colonial Secretary.

can frontier. Acts temporarily at Kootenay in absence of M. Claudet, who acts elsewhere.

South-west, and Assistant Commissioner of Lands

APPENDIX YY.

RETURN SHOWING THE COST OF ESTABLISHING THE ASSAY DEPARTMENT OF BRITISH COLUMBIA.

Cost of Assay Office.	Buildings {	Offices	\$4,543 00	
		Quarters	2,291 00	6,834 00
		Plant and Apparatus	10,000 00	
		Mint Machinery	8,609 00	
		Total New Westminster Assay Office and Mint	25,443 00	
		Establishing Cariboo Branch, including purchase of Lot and Building	6,000 00	
		Total	31,443 00	

Amount of gold assayed from the opening of the Office up to the present time—431,686 oz. = \$7,300,000 value.

Establishment of a Mint.

REMARKS.—The desirability of establishing a Mint in this Colony was brought before the Government in an Address from the House of Assembly of Vancouver Island to Governor Douglas, dated 31st day of March, 1859. The officers were appointed in October by the Master of the Mint, and left England in December, arriving in the Colony in February, 1860, about the same time as the plant and apparatus for the Assay Office, which had been purchased under their supervision. The coining apparatus was obtained in San Francisco, at the latter end of 1861, and was put up at New Westminster, in working condition, in the spring of 1862. Part of it was subsequently taken to pieces and stowed away.

The cost of cleaning it and replacing it into working condition would be about \$300. It is in good order.

The whole of the apparatus is worked by steam power, with the exception of the coining press, which is turned by hand. If the Mint were to be again used, it would be advisable to connect this machine with the other apparatus, and work it by steam power also, which could be done at a moderate cost. The machinery is a fac-simile of that used by the South American Government Mints.

Coins struck.

The coins struck were \$20 and \$10 pieces, of the same diameter as those of the United States, and of the same value in gold. They were of unrefined gold, of a fineness of 850, and the \$20 piece weighed 546½ grains, and contained about 20 cents worth of silver.

The United States coins are made from refined gold, alloyed with copper, the weight of the \$20 piece being 516 grains, and the fineness 900; refining, however, can only be carried on profitably when the operations are on a large scale.

Fees.

The assay fees are ¼ per cent., and it was proposed to charge ½ per cent. for coining.

The buildings are situated on Lots 1, 2 and 3, Block XIV. on the official map of New Westminster.

C. J. CLAUDET,
Superintendent of the Assay Office.

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